

# AVIATION WEEK

A McGRAW-HILL PUBLICATION

JULY 5, 1948

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WEEK**

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AVIATION WEEK, July 5, 1948



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<u>ROUTE</u>	<u>Using Motor 3-0-2</u>	<u>Using Plane</u>
Boston to New York	45 min.	32 min.
New York to Philadelphia	37 min.	44 min.
Philadelphia to Baltimore	30 min.	48 min.
Baltimore to Washington, D. C.	30 min.	24 min.
Washington, D. C. to Elkins, West Va.	50 min.	74 min.
Elkins, West Va. to Parkersburg, West Va.	51 min.	49 min.
Parkersburg, West Va. to Cincinnati	51 min.	37 min.
Cincinnati to Indianapolis	40 min.	49 min.
Indianapolis to Chicago	52 min.	66 min.

<sup>4</sup>Did you enjoy "The Case of Airlines X" or "The Case of Airlines Y"? We'll be happy to send you copies.

**M**INUTES away when you're flying short-haul routes, because they're in places where planes look ugly. That's why the 2-3-2 3-class seating, with its much greater passenger capacity are most seen for rentals? That model's offer high speed, luxury service to shorter distances, allows more passengers and generates more traffic in even with airports two well for point-to-point services. The 2-2-2 can serve those smaller markets because it's designed to take off and land with maximum load in the shortest distance of 14,700 feet, whereas 20 passengers in the standard power train require 16,300' and it's simplified loading, unloading and servicing makes short-haul flights between stops.

Action 2 is a typical example! Based on several performances, figure 4 shows 2-3 being *ABBA* here as that was played, on the hypothetical ratio would change almost its home between Boston and Chicago. That is a measure saying 13:16 in each time. Thus, the 2-3 would be landing in Chicago while the 1-2 was landing in Boston. And these figures assume the same ground times for both places. Apparently, if MARTIN 19-8 would have still more time here because it requires less time on the ground between landing and taking off! Just additional velocity on the F-16?

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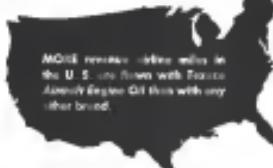
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# THE AVIATION WEEK

## GI Flight Training Passes Peak

Gradual thinning of veterans' enrollment in aviation training will become more and more apparent in following weeks and months. Some schools already are scaling their GI flight programs. Volume of flight training under the GI Bill of Rights has passed its peak, according to best estimates obtainable by Aviation Week.

But the drop-off will not be nearly as abrupt and painful as it threatened to be a few weeks ago. A newly satisfied and loudly voiced civil aviation industry has seen to that with the powerful support of thousands of veteran flight trainers and former students.

### 35,000 Telegrams

Alex Washington, representative of aviation groups directly concerned quickly spotted a "sheepish" clause in the supplemental appropriation bill, which was being passed through Congress in the hurried closing days.

Unhappily, it would have authorized Veterans Administration to pause out any veterans' training which VA regarded as "recreational and nonutilitarian." Top VA officials, not asked for their opinion on it, had already described GI flight training as part of these two objectives. They were right to start panicing.

(Dozens of overt acts by VA regional offices against flight training in lengths Texaco acts by top Washington VA officials have been fewer but more far-reaching.)

Colonel Washington today has a new respect for civil aviation at the post-roots level, as a result of the prompt action which followed discovery of the offending clause. During one night and early the next morning, before the bill was to be reported out on the House floor, representative local from the folks back home. Long distance telephone lines and telegraph wires from all parts of the U.S. crackled with the heat of veterans' messages to Congress.

It was reported that at least 35,000 telegram came in to the representatives in Washington, urging drastic alteration of the disastrous clause.

### New and Solid Prestige

Resulting Congressional action, after a rough and terrible battle actively supported by more thousands of telegram to senators, gave new and solid prestige to flight training for veterans. The bill now provided that the veteran who wishes to take flight training fit for use in his present or intended business or occupation is specifically authorized to do so. Such training is exempted from the classification of "recreational and nonutilitarian."

But the Congressional action at the same time completely cut the ground from under any justification for

purely "sport" flying, thereby writing its doom in July 1.

### Let Regions Do It

Just before the July 1 deadline for new contracts, A. H. Meek, director of VA's training facilities service for vocational rehabilitation and education, told Aviation Week that no general policy statement had gone out to Regional VA offices on the letting of new amateur training contracts. He said responsibility for the contracts was with the regions. Asked about the policy of memorandum agreements between the regional offices and individual schools, where contracts could not be completed by July 1, Meek said VA preferred for the schools to have contracts. In some cases where work load in the regional offices was too great or for some other reason contracts could not be completed, memorandum agreements could be used at discretion of the regional office, pending completion. VA's last totals on the number of flight schools and veterans enrolled in them date back to Nov. 1, 1947 where there were 362 schools and 118,400 enrolled.

### No Intent To Circumvent

Washington VA officials have denied categorically any design to circumvent the intent of Congress expressed in the amendment exempting from the "recreational and nonutilitarian" status flight training for use in business. Flight operators who experience more than reasonable delay in some VA regional offices on their contracts may therefore get a hearing on their complaints by direct appeal to Washington, it is indicated.

### Drop-Off to be Expected

A gradual decline in the number of veterans training has been foreseen, for several reasons and particularly caused with the VA's attitude toward flight training. Many veterans feel that the strong stand taken by VA against flight training was "wartime breath" attacking a situation rapidly changing regardless of the VA attack.

The GI Bill of Rights provides all training must be completed within one year after July 25, 1947. Veterans must have enrolled within five years after that date in any course they expect to take.

Only a limited number of the total veterans eligible for GI training are interested in aviation training. It is the belief of well qualified observers that a large percentage of this segment have already enrolled and that the enrollment rates this year will decline steadily, regardless of either artificial attacks or price pricing.

But businesses among flight school operators already are looking hard for new private student busses and tightening their belts for a slack period.

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## NEWS DIGEST

### DOMESTIC

Mark E. Neale, former news director for Eastern Air Lines, has been named director of public relations for Convair Wright Corp.

Sixteen F-80s of the 56th Fighter Group will fly across the Atlantic to Germany on July 7 for a two-week visit. The flight will be made from Selfridge Air Force Base, MI, Cleves, Math, via Lubeck, Cleveland, Ireland, and England to Fürstenfeldbruck, Germany. The 56th Fighter Group from the Canal Zone will be transferred to Germany via surface transportation in August. The 56th Fighter Group (Republic P-47 Thunderbolts) is the last combat group in Germany.

An Eastern departure of domestic airline service in April reached 91 percent over the same month a year ago. A total of 152,831 passengers were handled compared to 154,905 in April, 1947.

Human Trophy, awarded annually prior to the war for the most outstanding aviator of the year of the year, will resume its significance following a New York Swingers Club spelling the will of the late Clifford B. Harmon, who bequeathed \$50,000 for the purpose in his will on June 25, 1945. A high-speed record race angle to set the will aside, naming the award an "act of courage" rather than charity.

### FOREIGN

Falco Giordano established a world helicopter speed record of 128.5 mph over a three-kilometer course at Sunderland, England. The craft was piloted by Renzo Masetti and employed the hovercraft of 119.5 mph held by an Air Force Sikorsky R-5 in 1946.

Seaboard Airlines' Transpacific Airline has purchased two de Havilland Dove eight-passenger transports for use in interisland service between the Azores and England. The planes will operate from São Miguel, Azores en route.

Czechoslovak Airlines will open regular service between Prague and Beirut, Lebanon initially on a weekly basis. Flights will leave Prague every Wednesday, stop overnight at Athens and arrive Beirut on Thursday. Fare will be \$250 each way.

U. S. Post Office Dept. announces the resumption of both air and surface mail to the state of Israel. Air mail in 25 cents a half-ounce, surface mail five cents first class and three cents each additional ounce. Maximum weight is four pounds, no excess and letters may not contain merchandise.



Photo above shows B-57 Canberra bombers flying training route, in the first multi-national flying.

## Whoosh! It's America's "hottest" bomber!

The hot bomber, zooming downward with incredible clarity, is the new Boeing XB-47 Strategic-strike performer among the Air Force's new planes.

As large as a B-52, the Stratofortress hurtles itself onto the sky like a projectile. Eighteen-hundred rocket units and six jet engines give it a maximum of 41,000 pounds thrust. In level flight it streaks along like a giant arrow, with ten tons of bombs.

The Stratofortress is flying today—as realization of the need for air defense reaches a peak—in the aftermath of the world's most significant defense weapon.



**BOEING**

## Congress' Work Shows New Air Interest

### Joint Board inspires recognition of commercial and military aviation progress

The 90th Congress made substantial progress toward establishment of stable and potent military and civilian aviation programs.

Congress' weakened intent and concern over commercial aviation came with recognition of its importance as an auxiliary military air power force. This was reflected in the \$12.5 billion CAA authorization for fiscal year 1969, a credit in budget due to the joint Congressional Aviation Policy Board, headed by Mount GOF Sen. Owen BREWSTER, chairman, and Collier GOF Rep. Ted BUSHNELL, vice chairman.

The 89th Congress faced serious importation, but environmental aviation problems in the next Congress for defense, and also failed to complete action on other non-commercial matters. Financially, the Congress was liberal with both unusual defense and civil aviation.

► **Navy Defense Board.** The \$1,141,120 budget proposal for the Air Force, more than double the \$7,259,273,000 provided for the 1968 fiscal year, will permit USAF to handle aircraft procurement agreed to a 70-Govt program. But Budget Bureau and Congressional committee review of general expense funds will leave USAF just fit to support an establishment for five to a six-month program. The \$1,488,000,000 budget approved for Naval Aviation is almost double the \$740,000,000 allowed Naval Aviation for the past fiscal year.

The \$66,500,000 budget allowed National Defense Committee for Aviation—\$10,000,000 cash and \$18,280,000 contract authorization—is for new construction and equipment—set an all-time record.

In addition, in its closing hours, the Congress approved defense funds for major public works programs over the coming year for the Army USAF (\$76,800,000 cash, plus \$75,000,000 contract authorization) and Navy (\$51,357,100 cash, plus \$80,000,000 contract authorization).

► **Civilian Aviation Funds.** The \$149,

\$70,000 budget given CAA was up \$10,055,666 over the 1968 fiscal year budget (\$118,314,530) and \$3,450,400 allowed CAA was the biggest budget in the Board's history. To accomplish the purpose of the two agencies, Congress gave funds to cover the costs of the CAB's transition from the CAA administration from \$10,260 to \$12,000 a year. CAA personnel salaries were up before adjournment. Congress matched a deficiency budget of \$12,941,499 for CAA. It included \$11,500,000 (\$3,500,000 cash and \$30,000 contract authorization) for new international airports at Fairbanks and Anchorage and \$100,000 for planning on the air navigation system.



MEDAL FOR GRUMMAN

Louis R. Grumman, chairman of the Joint Board on Commercial and Military Aviation, had been awarded the 1968 Daniel Guggenheim Medal. In notable achievements in the advancement of commerce, Grumman was cited in particular for his designs of aircraft built for "Need and Purpose." Last year's recipient of the Guggenheim award was Major Lester D. Gorham.

The Congress' performance on national defense aviation legislation was less encouraging.

► **70-Govt USAF.** Legislation authorizing a 70-Govt Air Force program—including required support of aerospace—had passed a proposed strength of \$93,000, an overall strength of 24,093 or 23,500 aircraft, aircraft tons and annual procurement of 3,000 planes as \$83,000, 300 aircraft, pounds per airplane approved by the House, only to die in the Senate Armed Services Committee. Selective Service issuance passed by Congress authorized a \$82,000 strength for USAF.

► **Passenger.** Early in the first session, the Congress passed what is now the Armed Services Procurement Act, setting procurement requirements for commercial jet transportation and opening the way for separation of air craft contracts. But the Congress failed to complete action on several other vital procurement items.

Legislation regarding passage of the Vision Division Act that located posts on military and naval aircraft contracts to 12 percent and requiring the Navy to acquire 10 percent of its aircraft in the Philadelphia factory was approved by the House but mistakenly blocked in the Senate by Pennsylvania's Democratic Sen. Frank MacKINNON who objected to reorganization of naval plane manufacturing accomplished at Philadelphia.

► **Research and Development.** The bill authorizing the Secretary of Aeronautics to engage an enlarged number of scientific and professional advisor (at \$30 a day, plus \$10 volunteer), permitting research and development appropriations obligated in the year for which they are made to continue available for other negotiations in negotiations over the next four years, was approved by USAF in Finance Committee's cuts in writing. Authorities up to \$160,000 were passed by the Senate, but this particular issue died in the House Armed Services Committee.

► **Cabin.** Program—On the aviation system front, the Congress made several significant accomplishments. One action vigorously promoted in airline circles was the board in air mail rates from five to 10 cents on cargo. After studies were also completed by the Com-

merce' failure to complete action on legislation authorizing the government to reduce research and development costs on commercial transport and cargo planes. A similar measure is expected to be quickly approved by the new Congress in January.

Another of the Congress' accomplishments in the field of modern aviation legislation.

An air panel went twice, long urged by airline men, was authorized and is set for investigation Sept. 1. Rates were set high, primarily to allow off-peak air mail operation because if rates were set low enough to make air panel post directly competitive with surface postal mail, in addition to increasing airline losses, the air panel operation is expected to wipe out Post Office efforts in its new rate structure which have won Congressional passage.

► **Navigation Progress.** Legislation giving CAA navigation authority to go into class, contract, and special airport and air navigation facilities around the world and to grant foreign nationals in their operations, was sent to the White House for Presidential signature. Air navigation will have to be obtained from Congress before projects can be undertaken. CAA is authorized to "order, put and reasonable charges for aeronautical services (including but not limited to landing fees)." It demands we wait until the legislation will be to permit CAA to take over operation of military communication built during the war.

Legislation aimed at furthering the domestic air navigation facilities program was also approved. It authorizes CAA to request funding continuation, if necessary, inspection, and operating facilities, both on and off the federal airways. CAA, now limited to operating facilities on the federal airways, is blocked in its plan to blanket the country with unobstructed high frequency radio range installations. USAF's request for veto power over proposed installations was rejected by Congress.

Congress also approved legislation authorizing the Civil Aeronautics Board to retain some states and Lanes rights to accommodate air carriers. Civil action section required as necessary if national defense could be established, however.

Maritime Commission was directed to develop a research and development program of lighter-than-air rigid airships for oceanic service and submit it to the Congress under a request on which parliamentary Congressional action had already been completed.

CAA is insufficient to train government and civilian personnel in control tower operation under a bill sent to the White House for signature.



STRATOVISION BROADCAST TEST

First commercial television program to be carried by the Stratovision system—the Republic National Corporation—proved the success of the program caused high ratings developed by engine of Stratovision bases and Glass E. Martin A-232 mounted atop the nose and large transmitter antenna mast projecting below nose. The commercial operation, Martin 2-202 would be used.

## NAL-Delta Deal to Involve PCA?

**Merger of two carriers is far from consummated and observers see other lines eventually in combine.**

Merger with one or more other independent carriers in the eastern states, of the United States has become a distinct possibility for the strike-scarred National Airlines.

Revolving late last month of detailed discussions between NAL and Delta Air Lines officials in this situation that a merger of the two systems can be the answer to the financial future. But the jet is here, and CAB has already been informed officially of the negotiations.

► **Delta-Cessna.** Meanwhile, NAL is operating dry cargo planes and Delta the first week of 1968, the company recorded a \$714,810 net loss. Naturally, the first quarter is a highly profitable period on NAL's books in Florida. Like National, Delta showed heavy deficits both for 1967 and the first quarter of this year.

While National has insisted service to all points on its system, the effects of the pilot strike, which began July 3, are still apparent, with passengers and revenue far below the last year period last year. In April, 1967, NAL carried 753,000 passengers, 2,029,000 ton-miles passenger miles with a 49 percent load factor. In April, 1968, the carrier flew 31,571 enroute passengers, 16,687,000 revenue passenger miles with a 67 percent load factor.

Rumors of a National merger have been current for several months, shown by the apparently inevitable strike situation involving NAL, the Air Line Pilots Association and the Inter-

national Association of Machinists. A potential conspiracy involving both is believed to be trying to make a report on the labor dispute only this month, but there is no indication that either G. T. Gates, NAL president, or the union leaders will accept recommendations the claim demands.

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► **PCA-Penal.** Preliminary discussions between the two carriers indicate that eventually Crystal Airlines might be fused into the Na-

tional-Delta reorganization if the latter does not materialize. One reason attributed to the evolution of PCA at that time is the improved nature of its capital structure and reports of a pending reorganization of its finance. Delta and National, on the other hand, have relatively simple capitalizations.

A three-way amalgamation of National, Delta and Capital would effectively blanket the same areas now served by Eastern, as well as render strong competition to Capital's routes from Chicago to the Eastern seaboard.

## NACA Appoints New Members

Changes in the National Advisory Committee for Aeronautics include appointment of Dr James Harold Doolittle and Dr Charles W. Smith as additional members, and election of the post of Director of the Research and Development Board at a permanent government classification committee.

John Doolittle, who served as a First General and commander of the twelfth and 12th Air Forces, is vice president of Shurtliff Corp. and a pioneer engineering test pilot. He made the first complete "blind landing" and has worked the Schneider and Thompson trophies and the Congressional Medal of Honor, the latter for his heroic role in Tokyo.

► **Physics.** Renamed—Dr. Brook is Chairman of the National Research Council and a specialist in aeronautical research and development. His successor, though, might prove to include that new field. Brook is Director of the Illinois Foundation for Medical Physics at the University of Pennsylvania and served during the war as Coordinator of Research in the Air Sciences Office of the Air Force.

The establishment of the Research and Development Board is a recognition NACA membership change Dr. Verner F. Bush from a "member from private life" to a government member.

## GE Leases Plant

General Electric Co. has leased the former Wright Aeronautical engine plant at Laclede, Okla. for the production of the new J47 (TG-190) turbojet engines, scheduled for installation in the North American F-86A intercepting fighter and other Air Force types.

The 700,000-sq ft facility will manufacture about 2000 units. Production is expected to get under way by the end of this year.

G.E. states the plant will enable the aircraft power division to triple turbojet engine production, now estimated at 1500, Minn.

## Douglas Promises Cargo DC-6

Although no orders are in sight, company believes cargo field will develop fast enough to justify new plane.

Douglas Aircraft Co. will build a cargo version of the DC-6.

The Douglas Airlineplane (DC-6A) will be designed to carry 30,000 lb packed on a 9-ft base, one-stop trans continental haul by direct operation out of 47 cents per ton mile. Our major structural change from the DC-6 will be addition of six feet to the fuselage. Postponement is scheduled to fly next spring.

Following is the silent summary of the DC-6A:

► **Performance.** Gross weight at 96,000 lb., empty weight 48,480 lb., can sustain speed at 23,000 ft, 351 mph; cruise at 18,000 ft, 344 mph.; sea level range distance at 96,000 lb gross, 5140 ft, at 18,000 ft above sea level, 7900 ft; load at 51,000 lb. to sea level, 1450 ft; at 500 ft above sea level and 51,300 lb., 3950 ft.

► **Cargo.** Freighties: 900 cubic ft cargo space including 4175 cubic ft in the rear cargo compartment, with cargo door open and after loading, maximum loading and unloading, specially

strengthened cargo compartment floor, cargo compartment pressurization and temperature control, and Phlegis plan freighter heating insulation.

► **Price.** DC-6A will sell for about \$390,000, slightly less than the present gear version.

► **Costs.** According to the Air Transport Association formula, the DC-6A will have a direct operating cost of 47 cents per ton mile (4.5 cents with zero headroom) for one-stop transcontinental haul by direct operation. Gossamer West Coast service is 2.3 cent factor added (reduced 40 miles of non-headroom). Douglas estimates the DC-6A will be able to do the work of two DC-3s.

In addition to the cargo version, Douglas has designed a small version that can accommodate all equipment used now in a standard 60 ft railroad car car. With passage of the air mail postal bill, Douglas intent is placing the mail interior a mile or more than the aircraft.

► **Facts.** In Freight-Donald Douglas' early decision to proceed with the



LARGEST DOUGLAS TRANSPORT

Artist's sketch of the Douglas C-124 which will serve production for the Air Force in a strategic transport. Shows the unusual classless two-loading doors and the location of main and electrical cargo hoists off the wing. Designed for a 375,000-lb gross

the nose of the Douglas C-54. It will carry a payload of 54,000 lb over a 1400-mile range. It is powered by four Pratt & Whitney Wasp Major engines with three-bladed Standard free-bladed propellers.

DC-6A Airlineplane project without any firm military or commercial orders. It is anticipated that the future of air freight will be slow and it will be up to us to provide a chance to recruit some of the staggering DC-6 passenger market losses on the cargo version. Commercial sales of the DC-6 have virtually halted in 1949 with an estimated 300 sales reported to break even on the project. Douglas loss on the DC-6 project now stands at about \$13,000,000.

Equipment finance appears to be the largest obstacle to DC-6A sales. Major non-scheduled airfreighters, including Slick and the Flying Tiger Line have long been interested in a cargo version of the DC-6 for distant overnight chart to chart air freight service.

## E. E. Wilson Elected

### McGraw-Hill Director

Eugene E. Wilson, strength industry leader and spokesman, has been elected a director of the McGraw-Hill Publishing Co.

During much of his career, Wilson, now 60, has served strength manufacturing companies in top executive capacities.

Rutherford chairman of United Aircraft Corp., he was president at time of three of its divisions—Harrington Standard Propeller Corp., Sikorsky Aircraft Corp., and Chester Voight Corp. Later he became president of United Aircraft, moving from state to the vice chairmanship.

An Avantech graduate, he spent 25 years in the Navy, including the early period of Naval Aviation, before entering the aviation manufacturing field in 1919.

Wilson was president and is chairman of the Aircraft Industry Association. He is a strong advocate of a strong national air policy, and wrote the book, "An Answer to France."

Dr. Joseph E. Lunsford, leading automobile engineer, is also a McGraw-Hill director.

## Track Gear Contract

Fairchild Engine and Airplane Corp. has been awarded a contract for the modification of 14 sets of track-type landing gear assemblies on the C-52 Packet cargo plane. The aircraft now is being delivered to the Ninth Air Force and will be flown to MacDill Field, Fla., by the summer.

Fairchild will manufacture the landing gear assembly by the carbon dioxide welding technique. The aircraft will be modified at the plant before delivery to the Ninth Air Force.

Fairchild developed the Packet version of the gear into a completely interchangeable assembly.



GLOSTER METEOR VII—FASTEST TRAINER

Shown in flight, this Gloster Meteor VII, Britain's latest fighter derivative of the Meteor IV, is on its way to prospective purchasers at Today, with stops en route in France, Germany and Italy. Possibly the fastest training plane yet devised or has top speed of 800 mph), the VII is equipped with two Bristol Centaurus engines. Credit: Gloster

## Crash Probers Cite CO<sub>2</sub> Danger

CAA recommends precautions in use of extinguishers as proof is sought that UAL pilots were asphyxiated.

Pretorians passengers at the set of carbon dioxide fire extinguishers were unconsious left walk by CAA. This was a result of flight test conducted by Douglas Aircraft Co. and the CAA aircraft of a United Air Lines DC-6B aircraft. The last month.

CAA advised that pilots use oxygen masks, depressurized aircraft cabin and begin sealed smoke damage procedures when carbon dioxide fire extinguishers are discharged in flight. Doug Air Aerotex recommended similar procedure last year when the DC-6 returned to United service after a fire started in the aircraft.

All investigation was still pending an exhaustive study of evidence to determine whether the United DC-6 pilot was asphyxiated after discharging both banks of carbon dioxide fire extinguishers in the forward baggage compartment. That compartment is directly below the pilots seats.

Last radio messages from the United DC-6 indicated that the pilot suspected fire and discharged extinguishers in the forward baggage compartment. United President W. E. Parker said he had no evidence of fire in the place before it lit a high tension power line and exploded. CAB investigation regarding this point has not yet reached completion.

► **Fire Warnings.**—Plots of DC-6 and DC-4 transport have reported numerous false fire indications from detection em-

ploying a photo-electric cell. CAA informed airlines to disconnect these indicators at their discretion and Aug. 1 when required detectors are expected to be available.

Extensive leakage of carbon dioxide into the cockpit at both the DC-6 and Lockheed Constellation is possible. If pre-emptive procedures are not followed when discharging both banks of carbon dioxide fire extinguishers in the forward baggage compartment. That compartment is directly below the pilots seats.

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Later TWA and CAA personnel made a test in another Constellation on

June 9 at Kansas City releasing both banks of extinguishers. Carbon dioxide nearly exhausts the unit now before they were able to drop oxygen tanks and clear the cockpit of debris. Preliminary effect of burning carbon dioxide is to shut off normal supply of oxygen. Oxygen masks at the reference type now used on aircraft will not furnish oxygen at considerable cabin altitude but already been taken into the bags. Demand type masks providing a direct flow of oxygen and requiring air already breathed by oxygen tank.

Formerly, when the United States aircraft were in Alaska, Pacific Northwest bases had an Alaska Pacific Technical Meeting scheduled in several weeks later in New York.

Meanwhile came of a series of engine fires aboard American Airlines DC-10s was revealed as a punctured diaphragm on the exhaust air shutoff valves caused with after ignition on Pratt & Whitney R-2500 engines. The problem allowed gas to leak into a combustible fuel-air mixture and to dry out a gasket.

All three fires were reportedly not traced and maintenance required to repair without major damage. American has since plagued all units in the fleet since and deployment mandatory pending use of water injection on the engines.

## Bendix Strike

**South Bend and Detroit plants refuse to accept new wage agreement.**

Bendix Aviation Corp's largest plant, South Bend, Ind., and the Zenith Carborundum Division at Detroit went on strike last week until negotiations on a new contract at last appeared to have been successful.

The effect of the strike on aircraft manufacturing plans to be revised was undertaken, and an immediate Shipyrd to length was implemented. But these facts were clear:

- The company and the Benda Council, the negotiating group representing the UAW-CIO locals on the five Bendix plants, began talks in April on the revised existing June 25.

- On June 16, the company fled out to Federal District Court at South Bend charging UAW Local 9 with a slowdown and seeking damages of \$15,000. Company spokesman said the alleged slowdown was real.

- On June 25, the company and the Council at 1:34 am, were moving toward all five plants, plus an additional 5 units here for workers at South Bend and Detroit who have claimed "wage

## Luscombe Skylab

A new entry in the low-price personal plane competition, the two-place, 65-hp Luscombe Skylab will sell for \$3995. Flying Dutchman will compete with the low-priced two-place, the Piper Vagabond and Taylorcraft Traveler both priced at \$1995. The Skylab costs \$2000 less than any plane Luscombe has ever made previously.

Besides obvious advantages of self-construction, the Skylab has dual controls, two doors, 65-hp Continental engine, standard instrument panel, provision for auxiliary power with either electric or shaft. L. H. P. Kuhn, Luscombe president, said, and early evaluations showed his company had already exceeded May shipments of two planes in June, before the end of the month, and before announcement of the Skylab. Deliveries on the new plane start about July 15.

negotiations." This agreement was submitted to arbitration by the members both at South Bend and Detroit, accepted and voted on last week.

- At that same meeting, acceptance and the Council agreed to extend the firm's contract to July 15 to allow time for finalizing the wage pact.

- Two sides—Al that point, the company's story and the union's story—agreed. The company undoubtedly had contract was extended. The union's international headquarters in New York say the extension agreement concerned a utilization clause and that Detroit and South Bend did not notify.

At issue in this part of the dispute is whether under the Taft-Hartley Act, the company is entitled to insist that the contract be honored, if it means that the South Bend and Detroit locals are striking illegally if so contract is in force for those plants, the parties at different.

The report of the strike was due for

an average of two separate meetings in the middle of last week. In New York, the International Executive Board of UAW was due to take up the South strike problem at one of its regular meetings. In Detroit, the company and Benda Council was due to sit down at a meeting originally set up to finalize the wage agreement. Now the negotiations had a new dimension to face.

Meanwhile, about 7000 employees at all five South Bend and production units in Detroit, struck. Fuel injection devices and other parts parts of which that plant contained in each of the union's largest suppliers. At Detroit, about 1500 workers are out.

## ICAO Concludes Geneva Meeting

The International Civil Aviation Organization has wound up the second Assembly meeting at Geneva after three days of work. The entire field of world air transportation and increasing its membership to a total of 59 nations by the acceptance of Austria's application.

The final plenary session approved the Convention on international recognition of rights in search. The Convention, which is designed to aid international airline operators in arranging and financing aircraft purchases, sets up the speed with which new equipment can be brought into service on the world's airlines. (See page 10.)

Other actions taken at the Geneva assembly meeting:

- The Assembly recommended further study of Articles 31, 38 and 39 of the Convention on International Civil Aviation, to clarify Article 35, which deals with certification of aeroplanes and compatibility of routes, to simplify or freeze 99, which ensures the adequate means of international standards and to retain, revise or amend Article 41 which regulates application of standards of airworthiness to aircraft in service or due to go into service.

- Scrapped the procedures which private aircraft must follow when crossing international borders were recommended by the economic committee. Freedom of entry would be afforded without advance notice except where the flight planned is over inaccessible areas of distant regions lacking proper air navigation facilities.

- The Assembly also recommended that members of the Air Navigation Committee be selected from members of the ICAO Council members, with no more than one being appointed from each section. The present Air Navigation Committee of the Council will continue to function until the new setup takes effect.

- The Assembly also considered the problems involved in laying claim for use of air navigation facilities and services supplied by non-state, and directed the Council to probe into the respective aspect of airports and air navigation services for international and civilian.

- Application of Austria and Finland to ICAO membership were approved. Austria was accepted with the organization June 9, and became ICAO member June 22. Final approval from the Council Assembly of the United Nations has not been obtained yet to over Finland.

North Pacific ICAO meets July 13.

## FAMA to Idlewild

Fifteen Army Strategic Air Command (FAMA) became the fourth airbase to sign a contract with the Port of New York Authority for use of New York International Airport. Agreements were completed between the airport authority and the nonmilitary Airbases earlier covering the one weekly flight between Roma and New York.

FAMA is expected to establish regular scheduled flights between the two cities within the year, when new regulations now on order is delivered.

Meanwhile, according to sources of the Port Authority, it is the remainder of the leasing day contracts at La Guardia Airport will have agreed to move to New York International by this week.

Only one night flight remains at La Guardia to BMG's wholly-owned agreement between the U.S. and Britain, most operate at the same site at Pan American.

## AVIATION CALENDAR

June 19-20—10th Annual Racing Committee.

June 20—Rideauvalley Mid-Town Week.

United Parks and Recreation Association.

June 20-22—National Air Show, Park Coliseum, Oklahoma City.

June 20-22—National Association of State Fire Marshals, Hotel Roosevelt, Cleveland, Ohio.

June 20-21—U.S. Army Aviation Congress, Hotel Roosevelt, Washington, D.C.

June 20-24—Administrative re-enactment.

June 20-22—North Park regional meet, The Phoenix, Ariz.

June 20-22—International Association of Fire Chiefs, annual national meeting and exposition, Los Angeles.

June 21-22—American Society of Appraisers, Anaheim Hotel, Anaheim, Calif.

June 21-22—Annual Meeting Day and All-State Air Show, Chico, California.

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## INDUSTRY OBSERVER

► Convair State jet flying hour fighter will feature retractable chassis to reduce air drag. Heavily armed, it will mount 20mm, canister plus belt-fed, internally mounted rocket launcher and will carry 1000-lb bombs. Featuring a "bulletin" tail, the State is a 20-seat longrange fighter intended for advanced interceptord combat. Prototype will be flying this spring powered by two Pratt & Whitney J58 engines.

► Douglas will get an experimental contract from the Air Force to build one of its Missiles design military trainers. The Douglas trainer lost out to North American's T-38 in recent USAF design competition. Air Force is interested in the tail-prop pusher type as a possible intermediate trainer for jet pilots because it accustoms them to flying without a propeller in the nose.

► Expansion of USAF with strategic planes indicates that liquid-gas tanks, leading gears and wheels deform most rapidly during storage. Evidence of this metal erosion has also been encountered.

► Another evaluation for Air Force twin-engine trainer (T-28) is under way. In addition to the Martin 204-2 and Convair 108, the Air Force will look over the Beech Twin-Quad leadership and the Beechcraft Lead-in.

► Convair will probably get a Navy contract for 16 to 30 FSTs, a giant teardrop-shaped flying boat. The FST has a pointed bow bumper and a transport model. Navy's initial interest will probably be in transports. The boats will be built at San Diego.

► An Semiray Stratogon recently conducted persistent patrols that brought in to XH-47 has exhibited Lockheed F-104 fighters in flight tests at MacDill.

► Aerofonic GCA which combines use of a pilot talk-down with cockpit cross-pointer indication as a single system has been successfully flight tested in Los Angeles. Gilligan Barr, lead GCA designer, developed the automatic GCA under contract from Watson Laboratory of the Signal Corps.

► A. V. Root's Africa, a turboprop-powered freighter, made its first flight at England last June. The plane, being an Armstrong Siddeley Merlin turboprop, has the record British single engine plane of that type to fly. Root's Africa's first flight also powered by a Merlin beat the Adams' record by seven weeks.

► The 22 cities squadrons reported for the Air Force 70-Group program will consist of the following: six Cessna 180s (plus), 22 liaison (192) planes; two target (35) planes; and one ground control (one) plane (16 planes).

► Prototype of the Douglas C-124 will be a modified C-74. Douglas will also be able to use considerable C-74 tooling in the C-124 production line.

► Army General Forces soon may make an invited takeoff standard for B-57s. Extensive testing of small JATO units for such small aircraft is in progress.

► Flights of the VF-50C, Lockheed's two-seat trainer version of the F-104, were resumed last week after resolution of canopy lipetture, which failed on early test flights. Configuration of the long streamlined bubble profiled, at high speed, high lift factor which were augmented by external struts of cockpit parasutures.

► Navy's little-publicized high speed parasite experimental stratosphere at El Centro, Calif., just above the Mojave desert, will test new canopy designs intended to reduce opening shock front velocity and fast landing altitude jet aircraft. Tests also include designs of wings parasites for stability of test missiles carrying early intercontinental warheads.

► Prototype of the Miles M.60, British fighter, was destroyed in a crash during last flight. Two other M60s are nearing completion. Crash occurred during a climb, shortly after take-off.

# FINANCIAL

## ICAO Acts on Airline Financing

International convention will pave way for equipment trust arrangements. Congressional action still to come.

Significant progress in facilitating the widespread adoption of equipment trusts as an instrument in airline financing is being made on diverse fronts.

In the international field, 14 leading air powers have signed a convention which would encourage the property rights of lessors concerning aircraft leases.

The short mortgage convention, called "International Recognition of Rights in Aircraft," was developed by the Legal Committee of the International Civil Aviation Organization at the Brussels Conference in September, 1949.

► **Adopted at Geneva.** Under the leadership of Russell B. Adams, chief U.S. delegate to the Assembly of ICAO which recently met in Geneva, this convention was adopted. It is expected that this agreement will be highly satisfactory to the U.S. Government and to airplane manufacturers and operators at the Geneva meeting.

The importance of this accomplishment is highlighted by the fact that for 12 years international lawyers have failed to conclude conflicting national law on the subject. More difficult is that many nations with legal systems based on Roman law do not have any thing like the English concept of the chattel mortgage.

This has been a major bar to banks and aircraft manufacturers seeking a form of financing loan to plane purchasers which would rank as high as a first mortgage no matter where the location of the plane.

In many countries, under existing statutes, the laws and attachments arising from the nonpayment of an operator or supplier may take priority over a mortgag.

► **New Principle.** The new convention establishes the principle that property rights, including mortgages, created in accordance with the law of one contracting state shall be recognized in all other contracting states as having priority over other claims on a plane or its engine. An exception is made for claims arising out of salvage operations or expenses incurred for safety

and insuperable to the protection of the lessor.

The value of this agreement, however, will be limited to those countries approving the convention. Defense contractors may be found in the lack of protection given in any country of registration in countries not taking part in the convention.

It is probable that under the leadership of the major powers, however, that this concept may be broadened to include most, if not all, of the countries along the international air routes.

The adoption of that convention was strongly recommended by the Congressional Air Policy Board.

► **U. S. Laws.** Much remains to be done with our own laws to achieve equivalence in airline equipment trust financing. CAPA advanced a series of participant recommendations and sponsored legislation. One bill provided for the transfer of airport and space parts. Another removed the part of trustee standards on the part of trustee interests in certain states where such laws exist.

Both of these measures passed the Senate, but were still awaiting action in the House at adjournment.

The remaining CAPA recommendations for clarification of the legal question of ownership of mortgaged airline property at bankruptcy was not presented to the recent session of Congress. However, a survey disclosed that to assist each of us, it would require a complete overhaul of our federal railroad legislation. This was not realized a procedure to accomplish at the time.

► **Bankruptcy Changes.** To facilitate the necessary banking safeguards in creditor assignments, it is believed that revision of the Bankruptcy Act may be necessary, making it clear that the trustee retains ownership of the airline equipment in the event of bankruptcy.

The removal of all obstacles making possible the widespread use of equipment trust financing would be of great help to the industry as well as to the lessor banks. It must be strongly emphasized, however, that no panacea would substitute

Fundamentally, the individual credit position of the borrowing airline will remain the key determining factor. Equipment trust financing would add greater flexibility to an airline's plane acquisition program. However, it would be a better plan to take advantage of specialized bank arrangements.

► **Accessory Recording.** The recording of engines, gear parts and other major accessories can be expected to be basic in the use of other financing instruments, such as chattel mortgages and conditional sales contracts.

Recently Trans-Caribbean Air Cargo Lines had a flat accomplished the first piece of financing by which a commercial airline was covered by an equipment trust mortgage. This is untrue. The claim attributed to New York, lacking credits that the financing is "without precedent in aviation history" is probably true, but not in the sense intended.

► **Trans-Caribbean Case.** In this particular transaction, Trans-Caribbean sold \$15,000,000 in airline equipment trust notes, secured by a Douglas DC-4. The issue carries an interest rate of 7 percent and is convertible into common stock at \$2 per share.

The Trans-Caribbean paper, underwritten by Garberine & Co., presumably required considerable "sweetening," hence the high interest rate and unusual conversion privilege.

► **Pan Am Financing.** The first and perhaps the only true equipment trust financing was accomplished by Pan American Airways in January, 1948. The company sold \$1,500,000 in 4 percent equipment trust certificates to financial institutions. The funds were applied toward the purchase of Boeing Clippers.

Pan American had an initial 10 percent equity in these planes which provided a wide margin of safety for the lessor. Provision was made for the firm maturity of these certificates over a five year period. To minimize adverse tax consequences, virtually all of Pan American's equipment was added in collateral to this loan.

► **Acknowledgment.** This was done in view of the continuing interchange of engines among the planes, but it proved very awkward for both the lessor and the lessee. The problem was resolved when Pan American sold the Boeing equipment prior to the maturity of the notes and altered the obligation.

More wholly used to reduce equipment financing have been chattel mortgages and straight loans requiring a "negative" pledge clause. The latter is designed to safeguard the lessor's position by prohibiting the pledging of physical assets. In many instances, this has been found to be tenorless protection. —*Edgar Alquist*

# ENGINEERING & PRODUCTION

## Flat Rates

Pacific Airtowmative latest to adopt policy of fixed fees on engine overhaul.

They would pay with a customer's own demands (since customers would want more or less service than covered by the strict advantages to the customer as stabilized and lower prices and better budget control are obvious). PAC's manufacturing customers perhaps could profit on neck savings.

► **Labor Utilization—Advantages.** To PAC of a flat rate policy is clearly in cutting down overhead. As company officials for the time, they can work out the system so that it will reflect real value in measuring the time on each operation as an engine moves through each of the shops. Billing also would be simplified. Employees utilized for one and keeping could be forced to handle two with time of about 15 people can be saved, it is hoped.

The flat rate policy would mean a tightening up in general on the production operations, giving better labor utilization and better scheduling.

While the flat rate plan is hardly a month old—it began on Jan. 1—PAC sees three benefits already. To begin, experience quickly on the new policy. PAC obtained permission of existing customers to flat rate all engine new starting through its shops since Jan. 1, more than 100 engines have been flat-rated. PAC officials say the plan is to now set to have demonstrated its potential.

► **Anglo-Tower Airlines.** PAC's first rate policy is angled toward increasing

engine hours, and favorable interest has been shown by the lessors of six more to date, says John C. Hall, who has gone over to flat rate and is major competitor for PAC in the area, is more active in the planned and executive plant field. In catalog last 250 orders and includes the rates for engine, maintenance and accessory exchanges, a major point with PAC because of its heavy interest business.

## Boeing Re-Hiring Increasing

Boeing Airplane Co.'s laying off at Seattle for jobs formerly held by the striking Auto Mechanics Union has now reached a total of 668 a week. Total workers on hourly pay jobs is about 3,500. Half of them, the company claims, formerly belonged to the union. The union dropped 340.

► **Labor Utilization.** The National Labor Relations Board's recent back-to-work order was supposed to bring hearings on unfair labor practice charges against Boeing. A decision is expected "within two months." If found guilty, the company could appeal to the courts and if turned down it would be compelled to bargain with the union.

## Hughes Eyes Kellef

Hughes Aircraft Co. was disclosed last week as a result of Fairchild Engine & Airplane Corp. for the helicopter activities of Kellef Aircraft Corp. Fairchild previously owned a bid which is under development by court-appointed Kellef trustees. Plans for reorganizing the bid will be filed July 15 in U. S. District Court, Philadelphia.



BOEING MAKING FLYING TANKERS

B-57 modifications being at Boeing's Wichita plant extend performance by adding fuel tanks and wing tips on flying tankers for aerial refueling operations (background) and those being

in background there plane built from storage pools Boeing will use after plant space is used up for production of a plane not yet specified by USAF.

## Personnel Changes At Weatherhead

Hugh Clark, vice president in charge of sales for the Weatherhead Co., has been advanced to executive head of design and domestic sales division. R. P. Chase, formerly vice president in charge of the automotive sales division, has been appointed vice president in addition to general sales manager.

Weatherhead also announced other officer changes. M. G. Peterson, formerly senior manager of the automotive division, has been appointed general sales manager. John D. Baldwin has been appointed chief product engineer and Charles H. Carpenter chief design engineer.

### In other personnel actions:

Edwin H. Thorsen, an executive with the company's aircraft test department, has been appointed director of aircraft applications engineering. He succeeds E. E. Johnson, former application engineer in the aircraft test department.

John Martin, Catoe, Ohio, has joined the aircraft division. He is a former test pilot and has been assigned to the aircraft applications department.

John L. Johnson, Inc., has appointed Arthur Lippman as production manager.

Joseph F. and Robert J. Jans have joined the company's aircraft division. John Jans is the company's South American director.

Kennecott, Inc., has made Donald Brinkley manager of its copper department in the New York office. Herman-Werner Corp. has appointed George De Vos as manager of its new division at Columbus, Ohio. Edward H. Smith was named to head the aluminum smelter and foundry operations at U.S. Smelting, Refining & Mining Co. De Vos succeeded John O'Gorman, who has been promoted to general manager of the copper division. Werner De Vos was formerly manager of the aluminum smelter plant in Columbus, Ohio.

Lebanese Airlines has appointed Hicham Carter advertising and public relations manager.

Dick and Branca Petroleum Products, Inc., has appointed James W. Dick president of the recently organized division of the company.

Walter L. Martin, Jr., has been appointed manager of the company's textile division. He succeeds Walter K. Kell, head of engineering and chief pilot.

Florida Turbine Corp. named D. E. Lohr as assistant general sales manager. Cincinnati Motor Sales Corp. has appointed Tom T. Miller as manager of its new engine division. Wisconsin has been re-entered by the company. It has signed a contract with the state of Wisconsin to build a plant in Milwaukee to serve the company's plane engine needs in Wisconsin for the first time.

Tropic Aviation Sales appointed George L. Sauer as manager of its new service center. He now becomes manager of the service center for the Wilson-Patterson and Strohler Co.

## Planes for Saudi Arabia

Saudi Arabian government is reported to be interested in purchasing two C-46s and six C-47s.

During the past year, the Saudi Arabian reported two new planes, 10 transports, quantities of assault parts and armaments, and converted three C-47s to passenger use.

## BRIEFING PRODUCTION NEWS

► **Pacific Aerospace Corp.**, Burbank, Calif., has received a contract for the construction and repair of engines, avionics, propellers and instruments of the Blue Flying Academy, Hawaii.

► **HAMILTON Standard Propeller** division, United Aircraft Corp., now is delivering asphalt path 15-ft. three-blade propellers to the Navy for installation on the Lockheed P-3V Neptune search plane. The new propeller has hollow steel blades equipped with internal electric deicing, replacing the solid sheet blades used earlier on the type.

► **Lew's, Inc.**, Grand Rapids, Mich., has purchased Romeo Pump Co., Elkhorn, Ohio, through a stock-exchange arrangement. Romeo manufactures fuel, water, injection, hydraulic and air pumps and valves and will continue these activities as a Lew's division. Joseph H. Lyons, Romeo president, becomes vice president of Lew's and manager of the Romeo Division.

► **B. F. Goodrich Co.** has opened its multi-million dollar research center at Tuckerville, Ohio-between Akron and Cleveland. The facilities include six buildings on the 250-acre site completely equipped with scientific tools and equipment.

► **Kaman Aircraft Corp.** has expanded its flight test section at Bradley Field, Windsor Locks, Conn., by the addition of James F. McAvoy, a former Navy pilot. Kaman is engaged in development of the K-190 helicopter including an experimental contract from the Navy for design data, construction, tests, stress analysis and engineering report covering the rotor control system.

► **R. H. Alcroft Co., Inc.**, has moved into its new building in Farmington, L. I., N. Y. The company is a source for precision-made aircraft components, serving many leading engine and propeller manufacturers.

► **Aeronautic Corp.**, New York City, has been reorganized as the Aeronautic Division of Roush Corp. and will continue its manufacture of aviation, radio, television, roll and marine safety terminal communication equipment.

► **Stratos-Davis, Gardena, Calif.**, has appointed Willys Air Service, Tempehau Air Terminal, N. J., and Worcester Aircraft Sales and Service, Boeing Field, Seattle, as distributors of SD Pratt & Whitney R-1830-93 converted engines.

► **Federal Tool and Mfg. Co.**, Minneapolis, Minn., has moved into its new plant at 5600 Alabama Ave., Minneapolis. The company manufactures short-run stampings.

► **Manning, Marwell and Moore, Inc.**, New York City, has acquired the hydraulic division of the Arvin Manufacturing Co. and will develop industrial applications for Arvin Hydraulics products in addition to the present hydraulic line of relief valves, filters, and pneumatic pressure valves for the aircraft industry.

► **Clyde L. Martin Co.** has developed a new automobile brake drum which has been licensed to the U. S. Rubber Co. for manufacture. The brake can 50 percent fewer parts than the conventional hydraulic brake yet is claimed to possess more positive action, greater braking surface and other advantages.

► **Curtiss-Wright** Columbus has received its third order for 1000 hydraulic automotive lifts from the Joyce-Cordill Co. of Dayton, Ohio. Production will begin immediately with complete fabrication assembly and painting of the fourth drum at the plant. The lifts we shipped direct to filling stations and garages around the country.

► **Thompson Aircraft Products Co.**, Cleveland, is looking for a new plant for the manufacture of gas turbine blades and other jet engine parts. A facility at Newark, Ohio, is being considered. This is larger than the present Thompson plant in Euclid, Ohio.

► **Continental Motors Corp.**, shipments of engines in May were the highest in a year and exceeded January shipments during the preceding 11 months by 82 percent. Total schedules called for a 15 percent increase over May.

► **North American Aviation, Inc.**, has expanded its ground course training program under which about 80 enlisted men and civilians employed will be trained in the service, maintenance and repair of the B-57 and B-47 Flying Wing bombers. The training program requires about five weeks and will be divided between Hawthorne, Calif., and Marine Air Force Base, Calif.

contribution to

The NEW  
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Model 3V Wiper

• The new windshield wiper incorporates every feature that is desirable and practical, based on thousands of installations on military naval and commercial aircraft. It is the result of over three ten years of experience in this highly specialized field.

Blades are ipathromed at all times. • Obstruction in path of blade will not stall it. Blade may sweep in same or opposite direction. • Blades are parallel and locked when wiper is not in use. • Universal drive arm and tie rod require minimum stock of parts. • Wiper blades are easily replaced. • Pressure is removed from spars when not in operation. • Motor unit may be located at any position in the airplane. Stroke on each window can be varied. • Hydraulic tubing eliminates linkage control and provides additional space for mounting other instruments. • Motor unit and window arm are universal, providing maximum interchangeability of parts. • Constant torque values through entire stroke. • Uniform stroke at all speeds. Simplicity of design, resulting in lower first cost and reduced maintenance expense.

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FUEL OIL PUMPS - AIR COMPRESSORS - PRECISION PARTS AND ASSEMBLIES

## ELECTRICAL DEVELOPMENT

With deicing equipment now generally required in regular flight equipment rather than in emergency equipment development work has rapidly progressed to make these systems more efficient both from the operational and service standpoints.

Electrical heating is an important factor in these systems. By progressively integrating switch延時 the flow of heat can

start through heating elements on the leading edge of the propeller blades in more dependable sequence than can be obtained by starting each new circuit as it is passed consecutively in the last circuit in batches. Up to this time deicing systems have either been of the multiple-stage adjustable resistor type or of the commutator type, both requiring a definite off period between each cycle. This causes undue load increases on the generating sys-

tem and wastes available generated capacity. A new sequence timer has been developed by Pacific Division Bausch Aviation Corporation, which uses only plug-in circuit adjustment but provides instantaneous switching which eliminates the off period, thus providing up to ten passes about four times per average takeoff load.

The common speed source, through the gear reduction, operates a cam shaft at four times the speed of the distributor switch shaft. A single pole, double throw snap switch operates and by the cam shaft is closed for 10° and opens for 180° of each revolution. Each leg of the double throw switch feeds one cycle of a three-blade propeller. When the switch is closed it connects the first stage of the propeller to common with remaining stages. Circuit No. 1, at the bottom row in diagram, receives power from No. 2, or circuit No. 2. The snap switch now operates, immediately turning off the rear row and energizing another row. The bottom row is now in contact with circuit No. 2, while the top row is switched from circuit No. 1 to circuit No. 3, etc. The snap switch is operated at four times the speed of the distributor switch, thus all the switching is done in the snap switch. The de-icing occurs merely an up or down shift in the entire electrical path in the next circuit to be energized.



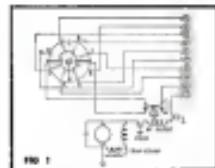
### SEQUENCE DE-ICER TIMING WITHOUT "OFF" PERIODS

**T**HIS Bausch Aviation sequence timer provides deicing without "off" periods during landing and takes up 10% more space available for given maximum generated load when used on a deicing system. Using a commutator compensated power control system it de-ices without the use of a governor, while a new type of sequencing mechanism permits any series number of circuits to be employed progressively without introducing an off period. Because of successive deicing there are no off periods. The timer is built into two basic units—the switch unit and the sequence control unit.

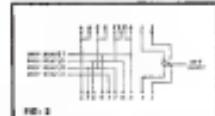
Because of its extreme flexibility this timer can be applied for aircraft deicing sequences. Bausch Aviation engineers are available to discuss your application requirements.



Eastern Sales Office: 421 Fifth Ave., New York 17—Canadian Office: Avionics Canada Ltd.—Montreal



In the case of propeller deicing it is often desirable to have two pairs of wings for different deicing conditions. A smaller timer also is desirable. By use of the arrangement shown in figure 2, deicing timers can provide two different sequencing speeds and the failure of either timer will not cause the other sequence to start in the case of a two-speed motor were used in any units.



Shown are two timer circuits 12-second timer used so that if the first starts at operating, each of the four propellers is energized 10 seconds out of each 10-second interval, while the second timer is energized such propeller will be energized 30 seconds out of every 120 seconds.

(4 deicing units)

AVIATION WEEK, July 5, 1968



## Track Gear Promises High Utility

New C-82 installation, developed by Fairchild and Firestone, features safety, improved braking, and wider spread of load.

By Alexander McPharley

New interest in the utility of the track gear system for landing gear on a steady-duty aircraft, for large airplanes, has been created by recent demonstrations of the latest version of the gear on the hefty 25-ton Fairchild C-82 military transport and cargo plane.

The new installation—a development of Fairchild and Firestone Tire & Rubber Co.—has come a long way from experimental track gear used test on English and in the country since 1940. In World War II,

• **Track Gear.**—In the early days of the track gear, which offers big advantages for completeness and extra load, we tried to be:

- Spreading the load over a wider surface when under control, so that it is more concentrated to one, two or four spots as is the case with the wheel gear even when dual or quadruple wheel suspension are used.
- Completeness, permitting roll-over into a smaller wheel well, as was possible, or not.
- Virtually elimination of ground loops, drops, drops and penetrations, and hence after a hot landing.
- More efficient landing because of larger ground contact area, better heat dissipation.

- Less wear on belt than on tire, since it runs cooler, and because of low road load pressure on belt in landing, compared to tire.

While the A-36 is a 10-ton gross weight craft, this was still not a complete test of the gear's ability to handle big plane loads.

• **Minimum Rolling-Rolling.**—wide spreading of the load over the track surface makes it possible for planes equipped with this gear to operate from sand, snow, dirt, and mud, making less than one third as much as conventional wheel gear planes of the same gross weight, says indicate.

They plan the obvious advantage that the gear is less susceptible to gear than are tires, or reasons why the Air Force has chosen a continuing interest in the gear since early in World War II.

• **First Gear.**—History of the track gear goes back to the Western Locomotive Co. for whom Dowty Engineering Co., Ltd had the first gear of this type, and which used it successfully before World War II in England.

Shortly after, the Dowty Equipment Co., an American affiliated organization, and Firestone began work an experimental contract with the Air Force at Wright Field to develop heavy duty trailer gears. (The American Dowty Company later changed its name to Hilti Industries, Inc.)

• **U. S. Applications.**—The American track gear was installed and tested on the Douglas C-47 transport, Douglas A-26 night bomber, Convair F-102 fighter, and on a Fairchild PT-19 primary trainer.

While the A-36 is a 10-ton gross weight craft, this was still not a complete test of the gear's ability to handle big plane loads.

Firestone and Bausch engineers see no reason why the track gear cannot be used on planes as large as the Cessna stabilized Vultee C-99 and B-52 or even larger.

The C-82 installation is perhaps the first that has practical usefulness in its present form, and it would not be my great surprise to see a quadra, or perhaps more, of the C-82s, fitted with the track gear because of the greater versatility of landing area which it makes possible.

• **Construction Details.**—Initially, such track gear was built up of a combination of rollers, plates, intermediate plates and bushings made of various rubber belts.

Concern on the begin fit into the groove on the inner surface of the rubber belt. Outer surface of the belt is hard buna material reinforced with wire cord plus to provide a rough surface for the plane's landing.

The C-82 gear is a refinement of earlier track gears in several ways. It has a more extensive system of rollers than which permits all of the spring units to be an integral part of the entire shock absorber system and at the same time provides better traction and load distribution. The C-82 gear is built on a Fairchild PT-19 primary frame.

21





CAMERA GRID SETUP (Fig. 1) for checking Constitution's takeoff and landing with 1/300-in. accuracy



get three blow-by-blow study performance data. Fig. 2 (left) shows digitized takeoff time, distance traveled, and total takeoff



is shown. Fig. 3 (right) tells distance traveled when 50-ft. tape has been cleared, the gear has elapsed.

## Accurate Checks Without Calculations

**Lockheed Aircraft** combines camera and grid into one unit to record takeoff and landing times and distances.

A new way to use a camera and grid in obtaining takeoff and landing times and distances is claimed by Lockheed Aircraft Corp. It combines camera and grid into one unit.

This system permits flight test engineers to read directly from a strip of motion picture film—without need for a slide rule to solve geometric ratios—thus the complete performance of a plane undergoing takeoff and landing studies.

W. L. Howland, chief of Lockheed's flight test instrumentation group, and developer of the new grid-camera system, says that testing of the B-36 we go a landing accuracy within 1/100 sec. and a distance-traveled accuracy within 4 ft.

North American Aviation will also have a copy, and Civil Aerostatic engineers are reported to

be greatly interested in a portable unit Lockheed uses at MacCoy to calculate takeoffs over a distance of 12,000 ft. ▶ **Grid's Makers**—Based in Los Angeles, the makers of the Lockheed grid (Fig. 1) do not claim a segment of a circle, in the center of which is measured the recording camera.

It opens a new vista of flight test techniques, and it is reported to have won Paul Bartsie, captain in charge of the flight test section at Wright Field, the distinction that it is the most advanced gear system in the United States if not the world.

The Air Materiel Command thinks so well of that a similar model will be built up at MacCoy Air Base, and another will soon be erected at Wright Field.

North American Aviation will also have a copy, and Civil Aerostatic engineers are reported to

blow the moving tape, at 14 pixels

AVIATION WEEK, July 5, 1968

along the base of the grid frame, in a series of vertical panels which provide reference points for elapsed time data indicated by the time tape. These panels are calibrated to give hair tape corrections at any point in which the camera may be distorted, and provide a breakdown of time into hundredths of a second.

▶ **Grid's Functions**—To illustrate the use of the grid as an actual test, and interpret the time tape, reference is again made to Fig. 2.

At the start of the test the airplane, Lockheed's No. 1 Constitution, was positioned so the cameras on the wing's outer wings were aligned with the vertical line of a blade-mounted T posted on the plane's fuselage above the wing and close to the craft's center of gravity.

As the engine was accelerated gradually to the takeoff rate, both grid cameras and time tape were started.

Soon after the takeoff run was triggered automatically by the observer cameras when the pilot turned on his lights by the flicking of a brilliant light set on the side of the fuselage, and by an arc plug lighting it in light within the camera. The latter light is used to indicate the position of the film used to provide a double check of the cameras to record the takeoff roll length.

In the particular test, study of the developed film showed that takeoff began when the moving time tape had progressed to 18 sec.

▶ **Time Distortion**, Attitude—As shown in Fig. 2, the 0 marker point of the "1/4-6 Sec." version just caught the time tape at exactly 49 sec. By adding the collection of 6 sec and multiplying the 38 sec which had elapsed prior to actual start of takeoff, a resulting value of 17 is obtained as the number of seconds of elapsed takeoff time at the instant the picture was taken.

By multiplying the 17 sec by the square of the ratio of the two lights, the inverted T on the fuselage shows a distance traveled of approximately 100 ft. The photographic flash of two lights in the lower side of the fuselage put all of the nose wheel well evidence that the aircraft is airborne.

Limit switches on right and left landing gear legs closed the light circuits when the gear became fully extended at flight condition was reached. Had the airplane started on one side, landing gear would have closed open one gear only and light would have been off.

Taking another frame from the same portion sequence of this particular takeoff, Fig. 3 shows the Constitution clearing the 50-ft. altitude horizontal marker strip at a distance of 2860 ft. from start of the takeoff roll. Breakdown of the time tape reference (Fig. 2) shows 38 sec duration of elapsed time of 26 sec from start of takeoff

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MEMPHIS HOW A PROBLEM WAS SOLVED - A NEW DESIGN BOON

## An Extra BOOST FOR DEPENDABILITY

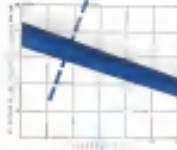


In conjunction with standard power settings, an auxiliary source of fuel permits a constant flow through a booster pump, a pump that will give dependable, continuous operation and provide positive fuel pressure under accelerated conditions. With the help of Adel Engineers, this problem was solved in the design of the fuel system on the new Ryan "Navion." Using the flight proven principles of Adel's strong and honest pumps, Adel Engineers designed a new fuel-economy pump that is giving outstanding performance on the "Navion."

This gas-type pump, a 17 or 28 valve motor and an adjustable relief valve, are all compactly designed into one size. The pump is ruggedly built and weighs only 3.6 lbs. It is capable of pumping up either gasoline at the rate of 30 gpm. The Adel fuel booster pump is also suitable for pumping fuel to aircraft type combustion heaters.

Adel clutches and brakes are also standard equipment on the Ryan "Navion."

Answers to design problems and Adel Sales offices to solve your particular problems, contact an Adel Precision Products Corp., 10727 Van Dyke Street, Berkley, California. Catalogs: Registration, Reliability & Power Engineering Corporation, London.



### FLOW CHART

Inlet air pressure vs pressure with relief valve closed

**ADEL**

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Manufacturers of Aircraft Hydraulic Systems • Motors and  
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Industrial Hydraulic Equipment • Aircraft Valves • Industrial Valves

An interesting feature of the grid system, with respect to the observer's recording of light flashed at start of rollout and point of becoming airborne, is that the grid observer's visual passes a coordinate check of the grid time scale against seconds taken by "inertious observer" systems within the aircraft.

► **Grid Endurance:** Obviously, the value of such a grid system as a precision instrument depends upon the exact positioning of its reference lines and the accurate functioning of the two tape.

Hewland reports that vertical distance was first positioned by surveying 100 ft. increments of the runway centerline and then checking each with its accurate location of a point of light at an infinite distance point on the runway.

Horizontal altitude was next checked against reference lines on small balloons raised to required heights along the runway centerline, under still air conditions.

Movement of the time tape is via a synchronous electric motor which turns a constant speed with accuracy to 1/30,000 sec. Periodic checks of the motor and tape driving mechanism are made to insure time synchrony.

While a photo film time tape has been used effectively, the metal tape now in use is considered more durable being less subject to distortion on windy days.

### Weight Saving

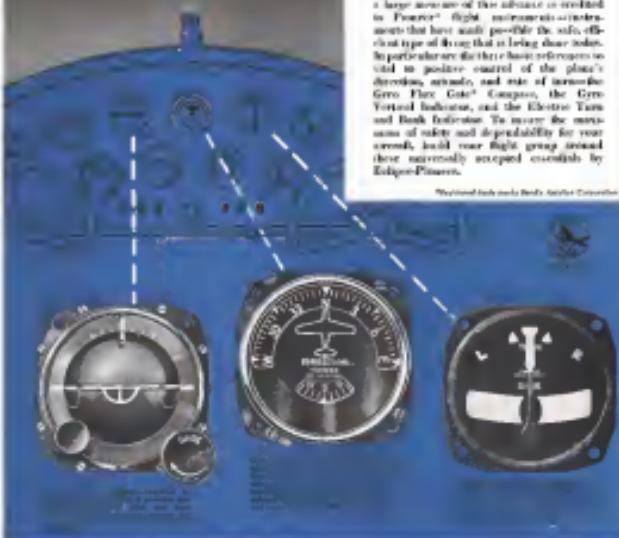
Use of TSTI aluminum lagging instead of steel is reported to allow a savings in weight of close to 35 percent on landing gear struts—an advantage claimed possible by a new process which permits bonding of aluminum directly to aluminum.

As fabricated for Chance-Vought military craft by Cleveland Precision Tool Co., the idea section of each strut receiver landing leg is pretreated with 802 in. of aluminum applied by the Van der Flent Corp. of America.

Until this development, it is claimed that use of light metal bonding gear struts was impractical because aluminum has poor resistance to wear, and that in enclosing landing struts, wear at scoring of the slot within the oleo cylinder would soon result in leakage of hydraulic fluid.

Precise cutting of aluminum, accomplished without need for endearing, is stated to provide an exception ally smooth, hard surface which will insure a tight fit between strut and cylinder, with a life claimed to be several times longer than steel. Test data is reported to show that the aluminum will not fail before the aluminum lagging

# 3 ESSENTIALS in any flight group



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A MODERN PILOTING has come a long way since the old "see-elephant-great" days, and a large measure of this advance is credited to Pioneer flight instruments—instrumentation that have made possible the safe, efficient type of flying that is being done today. In particular are the three basic references used to positive control of the plane's direction, attitude, and rate of turn—the gyro, the pilot's compass, and the gyroscopic attitude indicator. Eclipse-Pioneer gyro and gyroscopic attitude indicators are the mainstays of safety and dependability for your crew. Let us tell you how flight groups around the country are accepted essentials by Eclipse-Pioneer.

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## NEW AVIATION PRODUCTS



### Label Material

Moving material No. 16, operating at speed of production, for steel, iron, brass, plastic rods, tubes, or cable, is made by Accurate Co., 301 Monell St., Elizabeth, N. J. Unit comprises ball bearing marking roll carrying engraved steel aspects also engraved by focusing screws and having four pins which can be bolted to bench or stand. Ball bearing unit is interchangeable for different size grooves, and projection bushes have carries eccentric adjustment.

insert opened by hand lever to provide for diameter or rod or tube and depth of marking.

### Carbide Bushings

Adaptable for plug gage and drill jig bushings, and for valves and entries in springer woods are carbide bushings offered by Carbolor Co., Detroit 32, Mich. Units are in two general sizes: Group A, from 1 to 1 1/2 in. dia., to 1 1/2 to 1 1/2 in. dia.; and Group B, from 1 1/2 to 2 in. dia., to 2 1/2 in.

Group C, from 2 1/2 to 3 1/2 in. dia.



### Vice Pliers

New type vice pliers, "Geigert," features one-hand operation, finger-tip trigger release, three point grip, and

lightweight air base for small tools is announced by B. E. Goodrich Co., Akron, Ohio. Described as unaffected by lubricants, base is tilted not to swell to set air pressure or volume or tilt off to choke tool. Features include: Easy handling, minimum vibration, locking trigger, self-centering, and ability to hold checking. In air base, base weight 16 lbs per 100 ft. Working pressures are stated to be up to 250 psig.



### Check Serves

Offered as aid in development and tuning of automatic control systems employing 400- $\mu$  sec. averaging devices such as Schmitt or E type pick-offs, servos, and decoders, by Flight Control Engineers Corp., P. O. Box 177, Richmond 1, Calif. Gladen is that case provides numeric data which otherwise could only be obtained by computations or graphical methods. Frequency response and transfer function may be obtained over input range of from 1-400/sec. Amplitude may also be used to obtain equivalent d.c. transfer function of a-c amplifier which exhibits damping or integrating networks.

### Value Job Accessory

New heavy duty stone dressing stand for valve seat dressing is made by Black & Decker Mfg. Co., Towson, Md. Unit has adjustable quadrant mounted with popular angles, and bear-

ings are sealed from abrasive dust. Self-lock clamps are hand-adjusted in combination of stones up to 6 in. and angles from 30° deg. Unit can be bolted to bench or work top of B&D valve seat cutter. Standard stones are variously separable arms with diamond point and screw feed nuts, and adjustable stand.

ings are sealed from abrasive dust. Self-lock clamps are hand-adjusted in combination of stones up to 6 in. and angles from 30° deg. Unit can be bolted to bench or work top of B&D valve seat cutter. Standard stones are variously separable arms with diamond point and screw feed nuts, and adjustable stand.



### Aircraft Portable Extinguisher

Portable dry-chemical for entire cabin CAA-approved for aircraft use is offered by Avco Clement Co., Massapequa, N.Y. Unit weighs 10 lb. charged, is 19 in. long. It is dry. Chemical is sprayed by CO<sub>2</sub> cylinder pressure and disperses fast soiling gases upon hitting flame area. Doctor is rechargeable.



### For Pack Work

Double-purpose De-Arva punch, designed to perforate holes of different shapes and sizes up to 1 in. dia., is also adaptable for variety of blasting, drilling, embossing, and forming operations. Miller Co., O'Neill-House Mfg. Co., 313 Eighth Ave., Little City, Minn. Advantages claimed are: roller bearing rear conversion operator effort into increased pressure at impact point; triangular shaped nose, hardened and ground for accuracy. Double gaging arrangement providing tension of material, after discharge punches in round, square and rectangular shapes.

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AVIATION WEEK, July 5, 1948

## AVIATION SALES & SERVICE



First meeting of the reorganized CAA selected Phoenix Attorney Comptroller with Dale W. Rostek, new CAA administrator; lengthy together in Washington left to right, seated the new CAA members: Fred E. Hickey, Director, Budget Bureau (most) director of commerce; Paul Lynn, Undersecretary, Railroad Commission; William L. Anderson, Pennsylvania attorney general; George Holdsworth, publisher, Southern Flight; Mr. Koch, CAA assistant administrator, aviation safety; Mrs. Virginia Jackson, executive vice-president, Georgia Power Co.; Mr. John G. Dill, Atlanta City, manager of administrative and controller security; Administrator Rostek; Dr. Francis Clegg, liaison manager and name writer chairman; Fred Lee, deputy CAA administrator; Franklin Johnson, CAA safety subchief; Ed. S. Henley, deputy to Secretary; E. J. Sharrett, Jr., AGCA general manager; William H. Klemke, Jr., Atlanta sales manager; Leo M. Schlesinger, Inc., New York City; James C. Strode, World War II pilot, Atlanta City, manager of aircraft maintenance; Frank J. Leng, Atlanta City, director; Fazlullah Jhang, Service Section, CAA; Kirk Merling was first to be breveted.

## **Nonsked Committee Asks End of Spin Test**

Group reviews request, citing handicap to spin-preferred planes, and research on causes of spin-stall accidents.

CAA's Noncheduled Flying Advisory Committee has called for new consideration by CAA and CAB of the committee's previous request that the question be eliminated in private pilot examinations.

To support its revised request, the manufacturer has submitted additional evidence, using as its main arguments:

- Present space station requirement puts a premium on the design of airplanes that span easily so that they can be used as training, and landing aircraft that are designed as spacecraft or space stations.

- Fatalities and serious injuries in staff and spin accidents usually result from dangerous low altitude turns and manœuvres in which the pilot has neither time nor room to recover, even if he knows how.

Boggs, Harvard University, Boston  
School; J. B. Hartnett, Jr., general manager  
of Aircraft Owners & Pilots Association,  
Leighton Collins, editor of *Air Facts*, New York; Dr Harvey L. Chamber-  
lain, president, Butte (Mont.) Chamber of  
Commerce; Harold Wood, Repre-  
sentative, U.S. House of Representatives.

► Crosswind Gen - The committee voted a resolution calling for single strip airports as a result of the success of the recently developed casting heading gear for crosswind landings and.

"In order that airports be more conveniently located, cost the taxpayer less and result in better airports for the same amount of federal subsidy available for Class 1, 2 and 3 airports, it is recommended that where single strip airports undergo both superior maintenance of their location and can not to the community, that preference be given to such dealers."

AVIATION WEEK Feb. 5, 1945

#### **SALES & SERVICE**

After discussion of requirements for physical examinations for private pilots every two years, committee members said the existing regulations, thereby nullifying a previous recommendation that only one physical examination be given.

**Shoulder Harness**—A move of CAA investigators into one of shoulder harness for private pilots led merely to an endorsement of the investigation, but to no positive stand for installation of shoulder harnesses in private aircraft.

Recent AOPA sources of plane owners showed that with one exception investigators were not recommending shoulder harness installations, except experimentally. Except for its report to the Army, a shoulder harness arrangement which attaches behind the seat to structural members, can easily be installed and left, and might cost about \$25 extra as optional extra equipment.

Lestemore tried shoulder harness experimentally on two planes but has no commercial plans for it yet. Beverly reported shoulder harness could be installed in aircraft with little difficulty, but did not indicate such installations are being made.

Other subcommittees, exploring, report engineering difficulties in finding proper attachment points for shoulder harnesses on folding front seats of four-place and tandem and side-by-side departure cockpits that average pilot would not use shoulder harness if he had it.

AOPA reports contrary views in letters from manufacturers who are asking subcommittee to leave shoulder harness installations on their present planes.

Other members of the plane committee are members of the advisory committee. Tom Flory, Cessna, and William H. Klocke, Jr., Stratocruiser.

- **Other Recommendations**—In other recommendations, the group called for:
  - Continued use of revolving light beacons on the airports.
  - A 12-hour forecast of nearby weather rather than an eight-hour forecast, and location of local weather stations at airports, so that flying weather information would be more available.
  - More emphasis by flight instructors on instrument flying, as well as on visual search requirements by students in Pilot and Technician Recruiters under CAA.

Subcommittees were asked to work out a more acceptable definition of the words "nearby" in the Civil Air Regulations, to study the question of excessive exemptions by state of aviation bureaus at airports built with federal funds, and to study state-local relations in enforcement of aviation regulations and investigation of air accidents.

Committee was given CAA for the designation of industry subcommittees for safety agencies and for the development project for less expensive lightweight auxiliary equipment for VHF radio sets.

Chairman Flory parallel and various CAA offices, as well as Bert and Lloyd Child, secretary of the advisory committee, participated in the discussion. Principal outside speaker was Dr. F. J. Riley, Harvard University graduate school of education, who reported on the still-winning fight that research which he has been conducting (Aviation Week, Jan. 19).

### Waste Rock Runways

Upper Midland's most unusual airport, the Isle Reyal Seabird Field at Brighton just out side Tortage Lake and it is made up of gravelly waste rock deposited there since 1935 by the

mill of the Isle Reyal copper mine. Flynn says the material deposited by the mill makes good runway, the waters are still being used to irrigate the field.

- Used as an airfield for more than 20 years, the field is operated and maintained by Superior Airways and a division for commercial and privately owned planes, and the running costs are given by the Michigan College of Mining and Technology, Beaumont under Dr. Peter L. Lee. Just off the field, and it is used as winter by planes equipped with skis.

### Airport in Conflict With Outdoor Movie

An airport operator and the New York leisure commission are trying to figure out whether or not a drive-in theater can be located 30 feet from an airport.

Out-of-town negotiations are now under way following court issuance of a show-cinema order requested by the city.

► **Peter Flynn**, Shore-Eduard McCormick of Staten Island Airport claims the Department of Marine and Aviation, which controlled flying hours at his field, did so to make way for the movies. The departmental order paid him flying hours from runway-half an hour before sunset to sunrise, 7-30 p.m.

McCormick says that curtailment cuts into his business since much of his flying is done just before twilight.

► **Judith Theater**—The New York leisure commission, Beaumont Field, Staten Island, has been ordered by the Staten Island Supreme Court to justify its issuance of a license to the new \$39,000 theater.



LATEST BRITISH LIGHTPLANE

The Fairey Junior, new British single-place, was recently demonstrated at White Waltham Aerodrome, Berkshire, England. This

has reportedly a 13 gal. gas tank and approximate range of 370 miles at cruising speed of 68 mph. The Fairey Junior's weight is

approximately 400 lb. Manufacturer claims the craft is expected to eventually sell in the vicinity of \$28,000.

AVIATION WEEK, July 5, 1948

### For Piper Aircraft Financial Comeback

Piper Aircraft Corp. has retired on January 360,000 RIFC loan in less than six months, William T. Piper, president, has announced. Retirement was effected, he said, through accelerated amortization, profitable production and study sales.

He also disclosed that \$110,000 was paid to 12 major creditors on June 1 against notes not due until June 15, 1951. Notes had been accepted by the creditors on part due accounts with the understanding that payment would be accelerated to the RIFC limit. The \$110,000 payment reduces outstanding debt to \$121,000. It is expected that further reduction can be made over the next few months.

► **Increase Sales**—Piper said available funds for the first half of June enable the company will step up its place sales over beyond those of April and May when the company had all other personal plane manufacturers as number of sales.

The Piper corporation made its financial comeback by holding down production to positive commitments only. Stock of completed planes on hand and ready to ship are in order and in value, less than a full year's production at current levels.

The Piper line now includes the two-place sailplane \$650; Vigilante, priced at \$1,995; Skyway Lock Haven, Pa., a side-by-side \$550; tandem trainer at \$2,195, a 650-cc. tandem trainer at \$2,495, a 90-cc. tandem trainer at \$2,575, and a 175-hp. four-place Fury. Cruiser at \$3,925.

### Airport Suit Dropped

Residents of Franklin, Akron suburb apparently have dropped their court fight against Chanterelle Airport. They failed to appear when summoned to appear and the Ohio Supreme Court, in the decision at the Ohio Court of Appeals ruled against them.

James M. W. Chanchella, owner of the 493-acre \$700,000 resort development, said it was too late to commence construction this year since he had already committed the field to model plane flying this summer. Construction will be started next spring, but the field probably will not be ready for use until 1950.

Approximately 100 residents in the general vicinity of the airport filed suit to block the field as a nuisance. This was Cuyahoga Plus Court decision, only to let out on the Apparatus Court, which authorized completion and operation of the field as a "legitimate and necessary business."

### BRIEFING FOR DEALERS & DISTRIBUTORS

LEGAL CRASH PREVENTION—An aviation legal prevent in New York state was set by a jury finding that Schenectady Airport Corp. was solely negligent and liable for \$715,400 damages to a house in Schenectady, N. Y. The house was struck by one of the company's twin-engine planes that was piloted by Clyde R. Shoborn, attorney. Owners, Mr. and Mrs. John J. Crawford, sued both pilot and company, but they held split five of negligence.

EVANS-TRUMAN PROMOTION—Cliff Evans and George Truman of Washington, D. C., World War II pilots who demonstrated the reliability of the American personal-type plane by flying nonstop 2000 mph. Piper Super Chief around the world, are now looking systems selling spending equipment. They already have filed about half dozen on the East Coast letters for their apparatus that fly nonstop in these Super Chiefs, speed of an amateur dinner or luncheon sponsored by local civic organizations on the advantages of learning to fly, and discuss their world tour experience.

MASSACHUSETTS INSTALLS GEAR—Massachusetts Automobile Commission has installed a new Goodyear conveyor gear in the statewide tire repair system. As a consequence of new deposits and periodic renovations of old fields, the plan is expected to provide a service test and demonstration of the enclosed gear.

CROSS-COUNTRY CROSSWINDS—E. S. Sims, assistant to Standard Register Co. administrator, recently picked up CAA's certified gear CAA (Dodge) and placed it at Washington and look for a crosscountry record to El Paso, Tex. Purpose: two-fold, either further flight demonstration of the gear, and a flight check of the gear on Staten Island. Majority of findings made were corrected in areas of 15 to 35 mph. Wind running low and with 90 degree crosswinds, Sims made trials on auto-stop strips at Clovers, Va., and Anderson, La.

Sims reported "for low" crosswinds along Staten Island, and found his migration at airports along the way was from east to west.

He called the Staten I route a "navigator's dream" with plenty of railroads to follow. He urged preparation of specific "crosswind" techniques to insure flying the route.

AEROMOTIVE APPROVALS—Approved for four installations of Aeromotive propellers in addition to a factory equipment application of the propeller for the Ryan Navion have been announced. Approvals were on the 55-hp. Ensign Major E, Aeromotive Model F-201 with 60-70E or F blades, Piper Family Cruiser PA-14, 115 hp., Model F-208, 60-74E blades, and Model 25B with 618 blades and on both the Pritchard Model 41 with 145 hp. and the Stinson L-5 with 185 hp. Foreign plane Aeromotive installations have been increased to 10, Klippers Co., Inc., maker of the propeller, reports.

JOHNSON IN AGAIN—Texas sources say R. J. (Pop) Johnson, whose airline, looking two-plane plywood Rocket, was one of the first postwar planes to drop out of the market, is preparing another bid for passenger plane sites, this time with a "Johnson Bullet" 135' designed to cruise at 145 mph and with a 15-ft. wingspan. Prototype Bullet is reported nearly complete at a plant at Tyler, Texas.

All bid proposals for the T-33 jet job have been out three Bellets a day with 193 proposals. Johnson's firm's formal disclosure of the Bellet bid after the company had obtained CAA certification on it, but before many planes had been produced.

WALTER BEACH ON TOUR—Walter H. Beach, president of the American Airlines, has name as completing a 10-day tour of South America, starting from a transatlantic flight D-182. Technical stops on the tour included: Casablanca, Venezuela, Rio de Janeiro, Brazil, Bogota, Colombia, San Salvador, Panama and Mexico City. In addition to demonstrating the luxuriously equipped air-to-airplane tour, the tour seeks to stimulate South American government and private business interest in the fast-paced Beech Bonanza, and the forthcoming 28-place Beech Twin Quad transport.

—ALEXANDER MCNURLEY



Exposition scene at last year's glider meet in Samedan, Switzerland.

## Swiss Subsidize Private Flying

Influx of U. S. lightplanes pushes sport flying; Aero-Club's 6500 members in variety of activities.

ZURICH—Measures push 32,000 Swiss to buy, whether they can or cannot afford it, more than 30 models of planes at a time. The average size of these planes is less than 500 meters long here and there might keep most flying enthusiasts on the ground—but not the Swiss.

Flying in Switzerland is a very well-organized sport. And most everyone who flies or who wants to belongs to the Aero-Club of Switzerland.

Founded in 1930, the club's first members were all pilots who ventured into the clouds in biplane-driven to glided balloons. The well-known Swiss inventor Prof. A. Fornaxi is an honorary member of the club, and M. Depond of Geneva, recent club president.

After the first World War, airplanes became more frequent sights on the sky-pervaded Swiss airfields. In 1922, the first glider contest was held in

which is a sort of international parlor for the plane. The current system, sponsored by Federation Aeronautique Internationale, enables him to land on foreign soil without encountering difficulties with the authorities.

During 1947, the club issued "car-at-despoils" for 250 planes out of a total of 2,000 Swiss private planes in the country. Enthusiasm has grown by art; the Swiss planned their planes to compete in France, Belgium, Holland, England, Italy and the Scandinavian countries.

Still machine, however, is the Aero-Club's bottle of vodka to the first Swiss club members to set his plane down on a Moscow airfield.

**Government Helps**—The master of fixtures, as with most clubs, is a problem he's got. As keen as enthusiasm may be, the Swiss have found it doesn't always balance the books. Members pay dues of Swiss francs (\$5.00) a year which includes a subscription to the monthly *Aero-Blatt*. The Federal Government helps out with a contribution of 10,000 Swiss francs a year. Most revenue is picked up through special flights staged for shows and meetings, collectors, and every year a

special Pro-Aero stamp sale is held for several weeks for the benefit of the club.

With gliders approximately 60 cents a kilometer, flying is not a cheap sport in Switzerland. Plane rental fees are high as in longer games for those who own their own planes.

►U.S. Pilots United Here with the greatest number of American-made light airplanes, principally the Piper Cub, civilian sport flying has been given a big boost. Along with Piper, other popular planes are the Cessna, the Beech, and the French. At an aero-beach is experienced in air meets more than speed or distance records, the Beech, a small Cessna airplane, was the popular favorite of the day in maneuverability, durability and power, though it has not been available since the war.

Beach is public relations and advertisement chief; the Aero-Club has been doing much work in supervision. There are invited to Berne, Geneva, Basel, Altenrhein, St. Gallen, and Zurich. These regular classes are held for students with instruction in both flying and gliding.

►Glider Popular—Gliding has become a popular sport with the Swiss flying jet despite the treacherously changeable weather problems. The Swiss glider masters have accepted the challenge of mountain climbs and alpine valleys and hold their gliding contests right in the heart of the Alpine regions.

Samedan, located in the Upper Engadine valley not far from St. Moritz, was the scene of the first postwar international gliding competition. About 100 teams from England, France, Poland, Sweden, Czechoslovakia, and Egypt competed with the Swiss in alpine gliding contests.

This year, the Aero-Club will be host to gliding fans from all over the world at an international glider meeting to be held in Samedan July 19-31. Club members are hoping that some three thousand will participate.

►Moved from England—The meet, sponsored by FAI, originally was scheduled for England as a part of the Olympic competition. Shortage of big hangars led FAI to decide upon Samedan as host instead.

In addition to these international events, the club organizes a large number of domestic contests and exhibitions. Throughout each year, the glider pilots keep lists of their flights and the regular flyers on best performances for the year with the Aero-Club. The pilot holding the best total record of gliders in this annual Swiss champion for that year.

Last summer, Dolf Galgenen, who is in charge of the "Zentralvereinigung," sent a new Swiss dataset used for gliders by gliding from Zurich to

Ginevra, France, in his "Wolke," a German single seater now being built in Sweden. It took him seven days to make the 334-kilometer trip, crossing over the French Alps.

►Lead in Glider—Switzerland holds a leading position in Europe for glider construction as well as a top spot in glider performance. Although not many civilian aircraft are built in the country, the domestically built gliders such as the "Maurer III," the Spatzling S-13, the "Sipp IV," and the "WL-13" are well-known.

The limitations of the war years which brought civilian flying in Switzerland almost to a standstill encouraged model airplane building. Today, it is carried on by 114 active groups under the supervision of the Aero-Club technician Arnold Degar. These groups build planes during the spring, summer and fall at various places in the country and early stage hangar competitions where these model planes have achieved a reputation for quality workmanship.

►Warehouse Workshops—Members of

the Zurich section of model plane builders have converted an unused warehouse now an ideally equipped workshop and club room where they may work on their models even after school. During vacation, courses in construction and theory are organized as required and led by Aero-Club technicians.

In this way early interest in flying is transferred to Swiss youth under Aero-Club supervision and encouraged until these years are old enough to take part in the other civilian aviation programs flying for fun in May Samedan.

### Isla Verde Airport

SAN JUAN—Construction of the Isla Verde airport is expected to get underway now that the Navy Department has withdrawn its objection to the project. Approval of the Puerto Rican planning board is all that is needed to close the deal.



One of the model airplanes shown during a meet at the Samedan winter sports resort of Austria.



## Cargo Lines' Financial Status Hit

Using CAB data, passenger airlines say independents are in no position to develop airfreight industry.

By Charles Adams

Interest appears to continue at all domestic all-cargo operations are asking for a share of a freight market that has caused the independent airfreight industry's weakest point-of-financial-availability.

Balked at their efforts to have the 15-month-old record of the air freight rate case reopened, the major passenger-carrying airlines are currently gathering new information from reports which all-cargo operators were required to submit in last month. The new data sheets in detail the extent to which bankruptcy has overtaken the airfreight lines which, in Nov., 1976, began presenting their cases for consideration to CAB on May 1.

**Quantum Future.**—On the basis of this evidence, the presently certificated carriers are daring the independents are far too shaky to be entrusted with the future of airfreight. Now expanding their own all-cargo fleets at an unprecedented rate, the passenger-carrying

lines are attempting to show they are in a better position to develop the new industry.

U.S. airline planners, who have said there is no room in behalf of certificated for all-cargo operators, may be swayed by the independents' currently deteriorating financial posture.

CAB asked 13 airfreight still holding route certificates for up-to-date financial and operational data. The results:

- Airborne Cargo Lines, New York—No report received by CAB. Company underwent bankruptcy proceedings and is inactive. Carrier at one time in 1945 had 14 DC-13s.
- Air Cargo Transport Corp., New York—a petition for reorganization was filed in January, but the company has continued operations. Last month the company announced a \$10-million plan to expand its present shareholders and independent investors to place it in operation will be forthcoming. The plan is reportedly at this acceptable to ACTC's input credits.

Balance sheet on May 31, 1978, showed revenue assets \$123,862, total assets \$250,783, current liabilities \$1900, capital and contingencies \$497,163, and total deficit \$988,268, reflecting a \$26,794 loss in first quarter 1978. Operating deficits in April and May of that year were \$1253 and \$413, respectively.

ACTC flew 3,000,000 ton miles of freight in 1975 and 2,900,000 in 1977 but only about 250,000 ton miles in first quarter 1978. Company at one time operated 14 DC-13s, but the fleet has been greatly reduced. Personnel as Mar. 31 numbered 23.

• Almex, San Antonio—Recommended for a certificate by CAB examiner, the company operates a small all-cargo route in southern Texas with routes freight connecting almost entirely of papers generated by its parent firm, Bausch & Lomb Inc. Go Co. It has about 200,000 ton miles in the past two years. Present fleet includes two DC-3s and four Douglas Navistar planes. More than \$600 flight ton miles were flown in first quarter 1978. A \$57,388 deficit was reported as June 30, 1977, and a \$59,073 profit in the three months ended May 31, 1978.

• American Air Express Corp., New York—No report was received by CAB, with result unreturned undelivered. Com-

pany formerly operated coast-to-coast with three C-45s.

• Calair Air Transport (formerly Air Trend, Inc.), San Francisco—Company has been flying in the C-45s and reportedly has not yet been active in recent months. Total assets as of June 30, 1978, financial current assets \$172,610, total assets \$926,675, current liabilities \$38,595, deficit to date \$132,316 and capital stock issued \$152,500. Carrier had \$112,411 net loss last year but a \$33,109 profit in the first five months of 1978.

• California Eastern Airways, Oakland, Calif.—Action in bankruptcy was filed on May 15, and the company stopped services. Through Mar. 31, 1978, the carrier had a \$40,426 deficit, averaging \$471,631 in ton miles. Total assets \$11,794,294, current liabilities \$31,163, total assets \$923,620, current liabilities \$61,576, and capital stock outstanding \$99,000. Employment on Mar. 15 was 261.

Prior to its bankruptcy proceedings, CEA operated for C-74 coast-to-coast and had planned to lose 10 C-45s from the Air Force. It had 11,163,642 ton miles of freight last year, total exceeded only by Delta. Airways and American Airlines. California Eastern reported 3,541,223 freight ton miles in first quarter 1978. CEA creditors will meet Aug. 2 to set aside remaining properties. The company has been recommended for a certificate by CAB examiners.

• Flamingo Air Service, New York—A petition for bankruptcy was filed Mar. 1, 1978, but the carrier has continued operations. Through Mar. 31, 1978, the company had a \$775,536 deficit, including \$71,931 in 1977 and \$27,863 in first quarter 1978. This was a usual year in April. Balance sheet on Mar. 31, 1978, showed assets \$17,765, total assets \$108,496, current liabilities \$71,497 and stockholders' equity \$22,000.

FAS started operations in May, 1976, and has been solids continuously since then. It had five C-45s and 26 employees on Mar. 15 of this year. The company flew 1,772,971 freight ton miles last year and \$39,315 in first quarter 1978.

• Globe Freight Airline, Hartford, Conn.—Company started service on its Boston-New Orleans route in March 1974, with C-45s and unsupplied operations. In first quarter 1978, a \$91,116 deficit for the period. During the first half of 1977, Globe flew 165,516 ton miles of freight. The carrier planned to resume service this year with three C-45s leased from the Air Force.

• Mutual Aviation, Buffalo, N.Y.—No report was received by CAB. Company last year operated from Buffalo to New York and from Buffalo to Detroit and Chicago with C-45s.

• Slick Airways, San Antonio—Largest

U.S. airfreight carrier, Slick also apparently is the second financially deepest insolvent lessee. Defense through Mar. 31, 1978, was \$1,363,621, including \$44,474 in 1977 and \$77,879 in first quarter 1978.

Defenses show as of Mar. 31, 1978, showed current assets \$10,476,335, total assets \$11,196,335, total assets \$21,164,415, current liabilities \$511,351 and capital stock outstanding \$178,760. Company flew 21,462,274 freight ton miles last year and \$4,561,897 in first quarter 1978. Employees numbered 621 on Mar. 15 of this year. Recommended for a certificate by CAB examiners, Slick has been operating 13 C-45s during recent months. It plans to lease 10

more aircraft from the Air Force.

The Flying Tiger Line, Berlesek, Calif.—Active as an intercontinental cargo carrier since 1943, the company reported a \$1,155,384 deficit through Mar. 31, 1978, including a \$412,185 ton in 1977 and a \$14,589 ton in the first quarter this year. Mar. 31, 1978, showed current assets \$827,372, total assets \$14,586,44, current liabilities \$312,099 and capital stock outstanding \$176,000.

Organized as National Skyway Freight Corp., the company flew 5,654,984 freight ton miles last year and 2,712,318 in the first quarter 1978. Employees on Mar. 31 of this year numbered 232. CAB examiners have recommended the Tigre for a certificate.



EAL's RESERVATION SCOREBOARD

Every 24 hours, Eastern Air Lines receives approximately 22,000 messages through its new data center in Atlanta. Constructed at a cost of more than \$100,000, the "click master board's room" type scoreboard shows space availability on every EAL flight. Eastern has direct links through a relay system

to all the 85 cities in 24 states, Puerto Rico and Mexico in the EAL system. The bulk of EAL's seat space is controlled in Atlanta. With the new automation facilities it takes but 30 seconds of the passenger's time to make and confirm a one-way or round trip reservation.



## Steel Hard to Get?

Demand Still Exceeds Supply But . . .

... this is a typical view of night loading operations at a Ryerson steel-service plant. The stacks spread on several acres are on their way to a loading platform for delivery the following morning. Possibly none of these piles are completely filled—but, however, demand remains, we are doing our very best to serve a large group of steel users.

Unfortunately, as often seems to be the case, steel is what you want on hand, and if it is true that we are always short of some kinds and sizes, but our stocks turn over fast. And that in itself may be its own trouble. And in spite of newest modalities, we still believe the

over-all situation at our thirteen plants are the nation's largest.

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- U. S. Airlines, St. Petersburg, Fla.—After having suspended operations in October, 1947, because of the strike, was U. S. Air Service in May of that year with C-4%.
- Delta through Nov. 31, 1948, was \$1,677,875, including a \$481,638 loss in 1947 and a \$45,192 loss in the first quarter this year. Current assets on Mar. 31 aggregated \$844,154, total assets \$1,375,751, current liabilities \$59-

812 and capital stock outstanding \$1,906,600.

• U. S. Air Service, Teterboro, N. J.—Now operating aircraft maintenance in offices in addition to its cargo flights, Wally reported a \$33,677 deficit as of Dec. 31, 1947, and a \$597 profit in last quarter 1948. Current assets on Mar. 31, 1948 aggregated \$419,646, total assets \$666,343, current liabilities \$598,294 and stock outstanding \$191,524.



## PAA Mechanics Face a Problem . . .



### . . . of Packing a Helicopter Into a Plane

Mechanized equipment and stores cargo men were sent to Juneau, Alaska, in July. Helicopters should be soon. Alaska Airways' DC-4 based at Juneau, Alaska, took pictures showing the helicopter packed in front of the DC-4 cargo holds at Boeing Field, Seattle, as mechanics contraplan a problem due to putting a helicopter in a cargo plane. But the problem is not insurmountable and should stand well with no difficulty in getting across the big flight. The Department of the Interior will use the helicopter in Alaska to gather data for contour maps.

## PO Balks at CAB Mail Rates

Although legally obliged to pay amounts set by CAB,  
Post Office takes Congressional rep for its deficits.

Caused by Congressional cutbacks of the Department's high debts, Post Office officials are negotiating with increased bluntness that every one of their troubles can be traced to the Civil Aeronautics Board's operationalization of new route and higher postal rates.

The Post Office, which has paid the airfreight postage amounts set by CAB, has been losing low expectation to appear new route schedules during recent months. And the Department has told Congress it needs a larger legal staff to prevent possible reiterations in CAB name violations requests for higher airmail rates.

► **CAB in Square —** Meanwhile, the Civil Aeronautics Board also is dredging backroads from two sides. Among others which the Post Office considers too liberal are being attacked in midstage by the various associations.

Begins now a period between the Post Office and CAB in the "big first" rate review of last April, which saw the Board increasing premiums to American Airlines, United Air Lines, Eastern Air Lines, Northwest Airlines and TWA. The Post Office did not break proposed higher temporary rates for TWA and United, which have been forced to be extremely in need of additional cash. But it argued that any increases for the other three are unmerited.

► **No Unauthorized Airlines**—The Post Office indicated the big five division set up to combat the big four carriers will not be developed for feeder routes in CAB's Middle Atlantic area because last February, Baltimore in April and recently seen available at ten of the 26 states on its routes and asked the Board to issue the promised certificate.

The Post Office charged that "in

the final analysis Baltimore is prepared to activate several branch new route miles while actually reducing air service to only two new points—Harrisburg and Shadyside, N. Y.

In no way did it conclude the Post Office lacked facilities enough for expansion.

Here again, however, CAB has frequently acted enmity to the Post Office's ways. Late last month, the Board issued a temporary feeder certificate to New Airplane Co after a finding that report facilities were adequate on two of the carrier's three route segments.

The Post Office, as an expense review trip, had argued unreason of the certificate (Aviation Week, May 17), it questioned whether CAB in December, 1946, would have selected New Airplane Co to operate a feeder route if the Board had reduced the postpaid rate per mile in mail paying industry. The Post Office's successive post yield asserted that CAB presented postage only nine routes, not already on a certificate airline.

► **Ridiculous Allocated—** Following up its opposition to New Airplane Co's allocation, the Post Office has taken another move with respect to Baltimore. After it was last described for feeder routes in CAB's Middle Atlantic area December last February, Baltimore in April and recently seen available at ten of the 26 states on its routes and asked the Board to issue the promised certificate.

The Post Office charged that "in the final analysis Baltimore is prepared to activate several branch new route miles while actually reducing air service to only two new points—Harrisburg and Shadyside, N. Y."

In no way did it conclude the Post Office lacked facilities enough for expansion.

### CAB Counsel Resigns

Randy K. Murphy, CAB's assistant general counsel, has resigned effective in mid-June. He is leaving the Board to enter private law practice with Stanley Grotzky, who has resigned as executive assistant to CAB Chairman Joseph J. O'Connell, (Aviation Week, May 24).

**AIRviews**

It is plain that our flight's glamer days are over. "Rushing across to Nome" is no longer front page news. Today, every hour witnesses emergency deliveries of some kind by the nation's carriers of air freight.

However, such emergency shipments have ceased to be the vital part of the picture. Now the backbone of air freight is the leading manufacturers and individual firms who have carefully analyzed their costs and have determined that the use of air freight for normal shipments is currently saving them money!

In arriving at this conclusion, the seller or distributor of goods is forced to consider several factors. The basic factor, of course, is speed. Air freight's swiftness permits the catching of favorable markets; the wide distribution of goods in a matter of hours; the ability to keep customers happy and well satisfied; and savings of distribution, intermediate, and warehousing charges.

Then, there are the factors of clearance of delayed cost in packaging and handling, at least from the rough handling. All these factors, plus speed, add up to lower costs... better service.

Today, air freight has expanded to such an extent that it has become possible to realize business which leaders have not yet had a chance to seriously gain throughly on marketplace advantages. The fact that many internationally successful corporations are now using air freight is an extremely gratifying in increasing number of air freight users, for which we in the west are surely most be prepared.

*Douglas B. Longfellow*  
PRESIDENT  
INDUSTRIAL AIRCRAFT CORPORATION  
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## TACA Trouble

CAB examiner's report asks denial of renewed foreign carrier permit.

Waterson Standard Corp. has received another permit in as long fight to cover its airline in air transportation.

After losing all attempts to obtain a route certificate from CAB for operations in the Caribbean area, Waterson acquired a controlling interest in TACA Airways System last year. But now, partly because of the airline carrier's control, TACA may lose its rights to operate under Central American and South American routes.

► **Victory for Adams-Rite**—TACA has denied further access to the U.S., it should be a signal victory for Pan American Airways. PAA has charged that Waterson, through control of TACA, is attempting to get by subleasing routes it could not obtain by direct application.

A report issued recently by Adams-Rite engineer William J. Madden recommends denial of application by TACA S.A. for new routes or entire permits for flying services between San Salvador and Miami and between San Salvador and New Orleans.

Waterson had been issued TACA S.A. by CAB early in 1947, but that request had succeeded when the U.S. withdrew as a party to the International Air Transport Agreement. TACA has continued to operate under the expand permits.

► **Examiner's Report**—Madden urged denial of the San Salvador-Miami permit in view of TACA's suggestion of service on that link only this year. But the shift in TACA's policy to a two-year period is deemed to reflect no refinement in contract operation of the route between San Salvador and New Orleans.

Even while CAB gave the original permit to TACA it recognized that about three fourths of the company's stock was owned by U.S. rather than Salvadoran citizens. The Board decided, however, to issue the permit in accordance with the wishes of the Salvadorean Government, although under terms of the International Air Transport Agreement it would not have justified in establishing the domestic route.

► **Watches Continue**—Through its wholly owned subsidiary, Waterson Airlines, Whiteman Shipping Corp. now controls about 26 percent of the voting power of TACA S.A., according to Madden. Next largest block of stock is held by Madden. Madden and all the principal officers of TACA, including President Paul E. Richter, and a majority of the board of directors, appear to

represent Waterson interests.

The examiner commented on the "other unusual manner" in which Waterson has been pumping additional working capital into TACA, which has continued to operate in the U.S. market for slightly less than the "going rate" for such routes. The stage is operated by a Waterson subsidiary, and, Madden continued, so far as TACA is concerned its principal efforts involve entering on its books the profits earned through the charter.

► **Issues Deemed-Medley** and the fact that TACA is described in its Schedule should not be based upon consideration of the carrier's past history. He added that since the carrier has been controlled by the U.S., it is a shareholder attitude by CAB on TACA could not be considered an affront to CAB shareholders.

The TACA application should be considered as though a U.S. national were seeking the right to inaugurate and operate a service in direct competition with another U.S. national Pan American Airways which already holds a certificate. Viewed in this light, it appears the application should be denied.

The examiner said that disregarding the fact that TACA is now controlled by a U.S. airline carrier, the route panel application should be rejected.

## U.S. Service For Iceland Carrier

Icelandic Airlines Ltd. (Iceland, H.F.) has received authority to operate scheduled services over the U.S.

With President Truman's approval, CAB has recently issued the company a license to carry mail by flight from Iceland to the Atlantic, transatlantic New York and Chicago. The permit was granted in accordance with a proposed air transport agreement in effect between the U.S. and Iceland ADA management concerned not serving 36 Iceland in March, 1947.

► **New Routes**—Operating domestically in Iceland and internationally between Reykjavik and Prestwick, Scotland, via Norway, Denmark and Sweden, Iceland, H.F., owns and operates nine passenger planes.

Using an additional DC-3 as a transatlantic LHF will operate U.S. services on a non-scheduled basis, but on a minimum of an open season. The company has its own maintenance facilities in Iceland, and maintenance of all its planes in the U.S. will be provided either by its own maintenance or through arrangements with American carriers. Since LHF looks adequate facilities for major overhaul of DC-3s this service will be performed under subcontract either in the U.S. or in Europe.

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## CAB Says No

Permit for extrastate roadstrip summer fares is refused EAL and NAL.

Based on Eastern Air Lines and National Airlines to isolate summer traffic between Florida and northern points though longer roadstrip fares have taken another setback.

Two months ago, CAB suspended proposed EAL and NAL extrastate fares which would have permitted passengers to make a roundtrip for only 52½ percent of regular one-way fare between May 1 and June 10.

The Board's action represented a victory for Eastern Air Lines and Central Airlines which won the higher fares the popularity of the grants rate were having disastrous consequences.

► **New Approach**—But shortly after acceptance of their initial summer extra fare traffic, Eastern and National tried again. They proposed new roadstrip rates providing a more moderate reduction to 50 percent of regular one-way fare.

In suspending the second proposal, CAB declared it was fully sympathetic with efforts of any carrier to increase its gross revenues during off-peak periods. The Board pointed out, however, that such efforts must have a reasonable character of economy.

► **Lower Seat-CAR**—and the 50 percent discount on the part of the return ticket was being proposed. For a substantial part of the traffic carried by EAL and NAL as the fare of gradually rising costs. "The removal of new traffic that would be generated by the proposed reductions is purely conjectural," the Board admitted. "And if the proposed traffic should not generate a substantial amount of new traffic the financial effect on [Eastern and National] might be serious."

The Board also noted that the proposed reductions might force significant fare slashes by other carriers operating to the eastern part of the U.S., thus undermining the existing rate structure.

CAB noted that it could not overlook the possibility that failure of the rate cuts to achieve compensating traffic volume might lead to requests for increased and compensation by all carriers affected. "The board is advised," the Board concluded, "not to neglect the possibility of benefit to the carriers and the industry."

### SAS Daily Service

Scandinavian Airlines System will start daily DC-6 routes between New York and Stockholm on August 1. SAS currently is taking delivery on 10 DC-6s.

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### WAL'S NEW LOOK

Wearing Western Air Lines' new streamlined uniforms, Nilda Lundquist (left) on the way to boarding her plane is given a critical review by Virginia Black, who wears the old-style uniform.

### ATA Elects New Member

Robinson Airlines, Bronx, N.Y., was elected a member of the Air Transport Association at its XIX Annual meeting last month. The fledgling membership will become effective on the date of the annual convention, June 15. ATA's Board of Directors also elected Warren Lee Preston, TWA board chairman, to membership. Past president LaMotte T. Cole, former TWA president and now head of Consolidated Waite Aircraft Corp. In other actions, the ATA group approved a considerably reduced budget for operations in the second half of 1953; named Marion W. Arnold, ATA vice president of research and engineering, director of the new S6-51 air navigation traffic control program; and received a report from Roger G. Tippey, ATA general counsel, on the recent International Civil Aviation Organization meeting at Geneva, Switzerland.

### No Pressurization

Northwest Airlines has been sued by a passenger who claims his ears were damaged by a too rapid descent.

Mr. Louie W. Wilkins, St. Paul, filed a claim of \$10,000, claiming that on a flight from Chicago to Seattle his ears and sinuses were injured permanently. During a rapid descent near Billings, Mont., he passed out "experiencing pain" and bought on a temporary paralysis of his left arm and legs. He said he was flying in a cold when the begins the flight.

The airline is in agreement with negligence in relation to the rapid descent and is permitting her to receive the money knowing she will



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## SHORTLINES

► **America**—Reached a new peak in auto sales in May. Ardently totaled 1,931,629 car sales, up 152 percent over May, 1947. Exported aggregated 45,745 car sales, up 22 percent over May last year, and total 695,715 car sales, up 16 percent.

► **America**—Owens—Hill began its seventh year of movie film cutting operations at film houses more than 330,000 persons across the north Atlantic.

► **Continental**—Air Line Stewards and Stewardesses Association has agreed to renew their efforts to negotiate an employment agreement "by mutual understanding that they are well-organized." The statement followed the company's request that the union sign a non-Communist affidavit.

► **Elmwood**—Has added two more DC-3s to its fleet to handle summer schedules. Equipment now includes ten passenger DC-3s, two cargo DC-3s and a seven passenger Beechcraft.

► **Northwest**—From May 15, when NW began monitoring 5 percent fare subsidy to passengers on delayed flights, through June 19, only 100, or 2 percent, of the 1,000 passengers delayed for more than 15 minutes left. Company says cost of the refunds have been less compared to the benefits of the plan during its first three months of operation.

► **TACoA**—Has mobilized reduced regional trip extension rates to Central America effective through Sept. 30.

► **Taco-Cana**—Efforts to fly 10,000 British immigrants in Canada by air using radio link in arrangement with the Dominion government. First calls for operation of about 210 flight flights by the end of next March. Flights from Portlock and London begin in May.

► **United**—Has postponed an offering of 500,000 shares of common stock pending official findings in last month's DC-6 accident at Mount Corral, Fla.

Re-routing firm between California and Hawaii have been reduced 10 percent. Company reports 95 percent of all flights departed on time during May against 87 percent April and 82.5 percent in March. TACoA's rate for 34 DC-6s is now 100 percent.

Aruba—Effective in May aggregated 1,694,603 total miles, up 12 percent over April and 507 percent above May, 1947, total.

► **Western**—Has taken delivery on the first of its 10 Convair 240s.

► **West Coast**—With officials estimating three to six months will be required to

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Radio Broadcasts, Inc., 1000 Connecticut  
Avenue, N.W., Washington 6, D.C.  
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## CAB SCHEDULE

JULY 8—Meetings on Four American Airways flights—Midwest conference round trip (212).

JULY 9—OK'd sequence in Boston-Denver route. 1000-1000-1000-1000.

JULY 10—OK'd sequence in Atlanta-Oklahoma City route east coast. 1000-1000-1000-1000.

JULY 11—OK'd sequence in Atlanta-Oklahoma City route west coast. 1000-1000-1000-1000.

JULY 12—OK'd sequence on new service between St. Louis and Pacific West Coast.

JULY 13—OK'd sequence in Chicago-Minneapolis route, proposed from June 15 to July 15.

JULY 14—Meetings in Philadelphia and New York.

JULY 15—Meetings in Chicago and Atlanta and route east.

JULY 16—Meetings in Atlanta and various cities of Southern Cross Country route.

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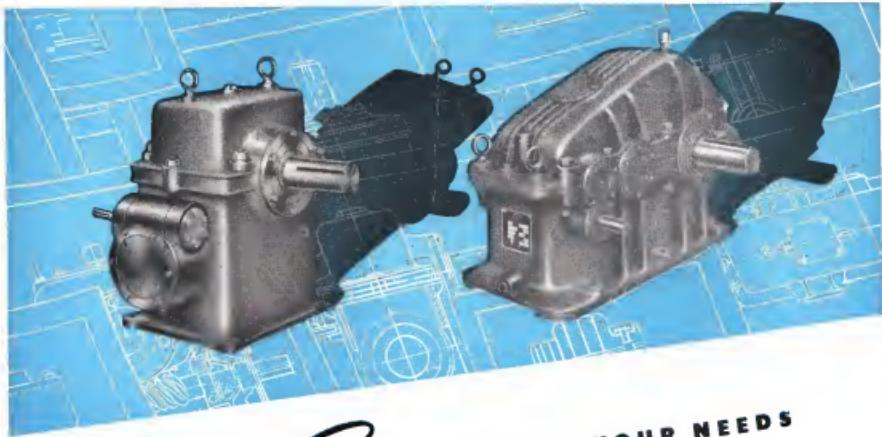
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